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EXAMINATION OF THE USE OF CONSULTANTS BY THE ENVIRONMENTAL PROTECTION AGENCY

HEARING

BEFORE THE

SUBCOMMITTEE ON FEDERAL SERVICES, POST OFFICE, AND CIVIL SERVICE

OF THE

COMMITTEE ON GOVERNMENTAL AFFAIRS UNITED STATES SENATE

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EXAMINATION OF THE USE OF CONSULTANTS BY THE ENVIRONMENTAL PROTECTION AGENCY

FRIDAY, FEBRUARY 3, 1989

U.S. SENATE,
SUBCOMMITTEE ON FEDERAL SERVICES,
POST OFFICE, AND CIVIL SERVICE,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:05 a.m., in room SD-342, Dirksen Senate Office Building, Hon. David Pryor, Chairman of the Subcommittee, presiding.

Present: Senators Pryor and Stevens.

OPENING STATEMENT OF SENATOR PRYOR

Senator PRYOR. Good morning, ladies and gentlemen. The Subcommittee will come to order.

This is the fourth in a series of hearings this Subcommittee has held on the use of consultants by the Federal Government. We have looked at the Government-wide problem of the lack of reliable information on consultants, and we have reviewed the Department of Defense's extensive use of consultants to perform its mission.

Today, we are doing a biopsy of an agency of the Federal Government. In this particular case, we have chosen the Environmental Protection Agency (EPA) and the work that the consultants do for it.

As part of my investigation into this issue, the Subcommittee staff has prepared a report which I will place in the record.[1]

We have just undergone a transition from the Reagan Administration to the Bush Administration. There are new faces all over town and throughout the Cabinet. At EPA, we have a well-respected individual who was confirmed last night by the Senate for the position of Administrator of the Environmental Protection Agency.

This hearing will look into the part of Government that remains the same, no matter who wins or who loses an election. You may think of the civil service, and while they do provide a very great measure of continuity, I am talking about a group that often remains with the agency and with the Government even longer. I am referring to a very large, invisible, unelected bureaucracy of consultants who perform an enormous portion of the basic work of and set the policy for the Government.

[1] See p. 31.

Congress mandates that EPA use private consultants and contractors in certain aspects of its effort to clean up the environment, most notably in the Superfund program. Engineering work required to clean up hazardous waste sites and the drafting of environmental impact statements are appropriate for performance by outside contractors. There is no question about that.

The Congress does not, however, require or encourage EPA to use consultants to implement policy, to assist in developing regulations, or to represent EPA at public forums.

My Subcommittee staff investigation, however, found that consultants and private contractors do everything from working on enforcing compliance with EPA regulations to actually writing EPA's annual reports to the Congress.

It appears that the basic work of EPA has been delegated to private consultants, for a profit—and I must say, a very, very large profit—even though the Environmental Protection Agency today has 15,000 Federal employees.

After examining the role consultants play at EPA, I have two primary concerns. First, I believe that many consultants are hired to do jobs that would be better left to the Federal work force. Some examples. One, a consulting firm was hired recently to make sure EPA itself is in compliance with the Clean Air Act. Two, consulting firms respond to congressional inquiries and formulate materials for congressional and public briefings. Three, consulting firms write EPA reports that are then sent to Congress.

My second concern is that many consultants also have private sector clients from the very industries EPA is charged with regulating. It is the classic case of working both sides of the street.

A few of the potential conflicts I found include: One, consultants hired to set up an EPA Senior Management Forum also worked as consultants for the DuPont Chemical Company. During the time period of the contract, EPA fined DuPont for violating EPA regulations. Two, a large management consulting firm, the second-largest in the world, I might add, who received over $15 million from EPA in fiscal year 1987, also has extensive involvement with the chemical and with the petroleum industries. Three, in at least one instance, a contractor performing a study for EPA recommended a clean-up technology to which it owned the rights.

The potential for a conflict of interest is so prevalent and the need to protect the public interest is so great, I am concerned that EPA is not taking the necessary steps to prevent those conflicts from arising in the future.

One of the largest consulting firms to do work for EPA, a well-regarded firm, is ICF, Incorporated. ICF, Incorporated is paid millions and millions of dollars every year by EPA to work on policy and regulatory matters. ICF, Incorporated then boasts of its EPA connection in its promotional literature. In one of its ads, ICF invites the private sector to use this firm because it understands "the framework of regulatory requirements, enforcement and public involvement in which our clients must operate." [1] After helping EPA

[1] See p. 86.

draft these requirements, is it any wonder that ICF, Incorporated calls itself "the fastest-growing firm in the industry"?

I am also disturbed by the frequent use of large "management support contracts." These contracts work like a checking account. It is a wonderful system, not for the taxpayer, but for the consulting firm. It is a checking account set up by EPA at a consulting firm. EPA grants the contract, sometimes a multi-million-dollar contract, assuring the consultant of a minimum award. EPA then sends work assignments to the contractor, requesting that specific jobs be performed.

It works like this. Does EPA need a meeting planned, including the agenda, the location, and a lunch menu? If so, write a check to ICF, Incorporated.

Did Congress request a report on how EPA is implementing Superfund? Write a check to Booz Allen and Hamilton.

Do EPA headquarter officials need to know how the EPA regional people are doing? Do not call the regional employees directly; do not go down there and ask them what they are doing. Just write a check to ICF, Incorporated and have them interview those employees on the regional level and then report back to the headquarters in Washington.

The Office of Personnel Management informs us that there are 15,000 Federal workers at EPA. As Chairman of this Subcommittee that oversees the civil service, I have a great deal of confidence in the Federal workers. Civil servants are governed by very clear, mandated rules on conflicts of interest, while for the large consulting bureaucracy setting the policy of this particular agency and many agencies of the Federal Government, there are no conflicts of interest regulations. I think we might be better served if Federal workers were allowed to perform many of these jobs.

EPA's mission is one of the most critical of our day. The agency works to improve the air we breathe and the water we drink. They are mandated to clean the water, the streams, the rivers and the soil. As we proceed today, I hope we can sort out the appropriate roles for Federal workers and the consulting industry in the Government's effort to provide efficient and unbiased services in this crucial area of environmental protection.

Once again, this is not a problem just with one agency, the Environmental Protection Agency. But this is a particular agency with a specific mission that is designed and mandated to protect the health and the safety, the environmental safety, of every man, woman and child in the United States of America.

We have a new President—a very fine President, I might add—who is making the environment one of his top issues. If I had any advice for our new President, I would say that this is another environment that must be cleaned up before we can attack the root causes of our polluted environment.

We have seen cases of working both sides of the street. Today, we will hear from representatives of the Office of Technology Assessment, the Procurement and Contract Management Division of the Environmental Protection Agency, and finally, the General Accounting Office.

I see our Ranking Member of this Subcommittee, the honorable Senator Ted Stevens of Alaska is here. Ted, I would like to say that

I think some of that Alaskan weather we have been seeing on television has moved into this particular room. It seems a little chilly, but it will warm up.

Senator Stevens.

OPENING STATEMENT OF SENATOR STEVENS

Senator STEVENS. Mr. Chairman, the last time I was home, it was about 40-below for a couple of days, and when it warmed up to 10-above, we all took off our topcoats and our suit coats. So we will have to find a place to hang up these coats if we keep this up.

I have two things to say, Mr. Chairman. I am involved in another hearing, but I appreciate your notifying that you were going ahead with this and giving me a chance to come over.

First—and we are probably too close to that pay raise battle of last night for me to say this—but I am reminded that when I was Chairman of this Subcommittee and Chairman of the Defense Subcommittee that we tried to put into the law a provision that contractors with the Federal Government could not pay people in excess of the Federal salary level—did you know we did that?

I think you have got the tip of the problem here that we were talking about last night, and that Mr. Cutler talked about before when he appeared before this Subcommittee. People in Government find out that they have got a ceiling in terms of their income, so they create a situation where one or two leave an agency, form a corporation—it is a nonprofit corporation—apply for a grant, and the salaries go up.

You have questions about the consultants. I have questions about what happens to the people who are left in Government who see that they cannot get any increase, either, so they start going over, and pretty soon most of our work is done by consultants. You mentioned some of the consultants that are in the private sector as profitmaking entities; I think you would find there are just as many in the private sector that are nonprofit. The result is the same.

We have to find some way to bring about the desired result that if you are spending taxpayers' money, either in the form of grants or in the form of contributions made to nonprofit corporations, you have to be subject to the same controls that we have on the Federal salary level, or the Federal salary level is an impetus to leave the Government.

So I would leave that suggestion to you. I would like to work with you. Obviously, I think you are where you are and I am where I am because of the flurry over that business of all contractors having to be limited to Federal salaries, my friend; it had more of an impact on the society around here than anyone believes.

Secondly, I came over because I am worried about another aspect of the Superfund. Recently, I have been involved in two situations in Alaska where the EPA has required clean-up of two sites. Both of them were battery sites. Batteries were taken in, and they drained them and melted the lead down and used them to manufacture new batteries that would withstand this cold we are talking about now—our batteries have to be of special manufacture. And

those batteries were particularly needed both by the military and by the operations of the oil industry on the North Slope.

When the EPA consultants made their report, it required that the contaminated soil be taken from Alaska. You have to think that one over, but we do not usually export soil, particularly contaminated soil. But there are no certified disposal sites for hazardous waste in our State. And again, when we tried to work it out with the EPA, we were not able to deal with the contractors who actually were in control of the project. They were not Government employees.

Now, I have a very difficult time trying to figure out how we are going to handle the Superfund if we do not have the responsibility of the Federal Government. It comes back to your point. In other words, the contractors that were involved, as I understand it, really were not concerned about any instance other than those that they were working on. We were concerned about the question of whether or not there going to be a disposal site or sites in an area that is one-fifth the size of the United States, and there is apparently no contracting out of that; and the money for that is not an attractive area, apparently, for this contracting out process.

We have dealt in this Subcommittee with contracting out for a long time, but it always came up in another way. It came up with OMB wanting to force out of Government some things that could be done less expensively. Now we see a process that takes things out of Government and results to a substantial increase in cost and a loss of Federal control.

So I want you to know I think all of us would be very interested in pursuing what you are pursuing, but I would hope that you would broaden your scope, Mr. Chairman, because the impact on those who are left in Government is the pay issue. The control concept is the policy issue; who really controls the future of the Superfund if the majority of the decisions are being made in the offices of Federal contractors, be they nonprofit or profitmaking.

So I congratulate you on the hearings, and I would ask that you submit one related question to OTA in my behalf, if you will, when it comes up.

Senator PRYOR. I would be happy to, Senator Stevens.

Senator STEVENS. Thank you very much.

Senator PRYOR. On one point that you have raised, Senator Stevens, I might add when we hear of the "revolving door" we usually think of the Department of Defense. We have seen all those stories for years. We also have a "revolving door" here, from EPA out into the private world. For example, one company I mentioned is ICF, Incorporated. Here is their annual statement, where they make great mention of the top people in their firm who have formerly worked with the Environmental Protection Agency as Federal employees in policymaking positions.

So it seems that we are having a cross-breeding here of the whole system. I know exactly what you are talking about, about the lack of control once these particular missions are contracted out.

Senator STEVENS. Yes, Mr. Chairman. And I think you will find the same thing in the NIH; you will certainly find it in the Department of Defense. And I think we are also seeing it even in agencies such as the Park Service and other areas where there are grant

funds. But the real problem that basically comes back to this Subcommittee is where is the incentive for young people to come into the Government and get any experience if they can go to these organizations and get more experience and more pay right off.

We are losing a lot of control, I think, not just congressional control, but I am talking about total Federal Government control over the objectives of things like the Superfund, in this process, in my judgment.

So I congratulate you, and I am sorry I have to go back, but I do ask that you submit this as a question for OTA.

Senator PRYOR. I will be glad to do that. And let me, as you leave, compliment you on your choice of neckties this morning. I want you to know there was no communication between Senator Stevens and myself this morning.

Senator STEVENS. Our wives did not go to the same store. [Laughter.]

Senator PRYOR. Thank you, Senator Stevens.

My friend, Senator Sasser of Tennessee, could not be here this morning and he has a statement that I will place in the hearing record at this time.

[The statement referred to follows:]

OPENING STATEMENT OF SENATOR SASSER

Good Morning Mr. Chairman. I want to add my welcome to our witnesses today from the Office of Technology Assessment, the Environmental Protection Agency, and the General Accounting Office.

I thank my good friend and colleague from Arkansas for convening this hearing. I share his concern that use of contractors in superfund cleanups should know some proper boundaries, if there is going to be meaningful oversight and control of where the program and the dollars are going.

And "superfund" is the right word for this project. When Congress reauthorized it in 1986, we earmarked eight-and-a-half billion dollars for the following five years. Between Government and the cleanup industry, perhaps 10 billion dollars has been spent already since funding for the program began in 1982. And that may be only the tip of the iceberg—the Office of Technology and Assessment now tells us that it might take 50 years, and as much as half a trillion dollars, to deal with all of the environmental sites that should be included in the superfund cleanup.

All this is happening at a time when the Federal budget is being stretched beyond its limits to cover existing programs, let alone new ones. And one of those new programs is going to have to deal with still another environmental hazard: the deterioration of our nuclear weapons facilities. That has a price tag currently estimated at 100 billion dollars and may go even higher.

So it is absolutely critical that Congress and Federal regulators have a handle on how superfund money is being spent. But what we are hearing is that this oversight may not be working, given the way that superfund cleanup activities have evolved.

We have known all along that superfund would have to rely very heavily on contractors in private industry. The technical expertise and human resources which are required cannot be found exclusively within Government circles. There are many "good" contractors at work on this program, and private contracting can be the most cost-effective approach to cleanup—if proper policy guidance and review is maintained by the public sector.

But therein lies the problem we seek to address. The superfund program has become enormously, and perhaps disproportionately, dependent on the contractors who benefit from it. A disproportion in expertise, between contractor employees and Government regulators, means that contractors do much more than plan and execute the technical and engineering aspects of site cleanups. They are often the only realistic source for much of the information and knowledge to formulate and analyze superfund policies. The contractors go so far as to write many of the regulations and much of the testimony submitted to Congress.

In the face of this, resources and in-house staff at the Environmental Protection Agency are hampered in providing meaningful oversight. Indeed, we are told that

many of the "best and brightest" at the agency, for understandable reasons, end up moving to the private sector where pay is superior. That only repeats the syndrome of well-staffed contractors, dominating the understaffed agency that is supposed to monitor them.

The numbers speak for themselves. In fiscal 1989, 87 percent of the appropriated superfund budget is going to contractors and consultants, and only 13 percent to E.P.A.'s administrative expenses—compared to 1982, when E.P.A.'s share of the budget was about 21 percent. Besides losing control of governmental prerogatives and functions to contractors, E.P.A.'s staff is hard-pressed to monitor waste and fraud. The Office of Technology Assessment has uncovered evidence of poor technical performance, overbilling, and performance of unnecessary services by some contractors.

Thanks in large part to superfund, environmental cleanup is a "boom" industry. And unfortunately, when that happens, we usually see a proliferation of "experts" who at best don't have the knowhow, and at worst lack the integrity, to serve the public's interest as well as they do their own.

It may be time to redress the imbalance in resources going to contractors versus the Government's environmental enforcers. I believe this is one option we will explore this morning. I look forward to hearing some detail from our witnesses about the nature and extent of contractor fraud and how they propose to deal with it more effectively. Again, we do not want to impugn the honest contractor but we cannot tolerate the dishonest one.

Thank you, Mr. Chairman.

Senator PRYOR. Let's hear from the Office of Technology Assessment now. We have Dr. Joel Hirschhorn, who is the Project Director, OTA.

Dr. Hirschhorn, we look forward to your statement. I have read your statement. If it is possible, I wonder if we might ask you to summarize that statement in 5 or 6 minutes?

Dr. HIRSCHHORN. Yes, that is exactly what I planned to do.

Senator PRYOR. Thank you, Dr. Hirschhorn.

TESTIMONY OF JOEL HIRSCHHORN, PH.D., PROJECT DIRECTOR, OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS [1]

Dr. HIRSCHHORN. We appreciate the opportunity to be here today. OTA has been studying Superfund since it began, really, in 1981, and in all of those studies we inevitably had to deal with the use of consultants and contractors because, as we have tried to point out in our report, the consultants and contractors really do nearly everything; there is a heavy dependence on these consultants and contractors to the extent that between 80 and 90 percent of all the billions of dollars spent on Superfund are going to these consultants and contractors.

Moreover, the spending on the contractors has been increasing while the spending for EPA's own employees has essentially remained flat. And of course, Superfund as a program has really grown extensively in the last several years.

And we point out exactly the point that Senator Stevens was making, that the people remaining at EPA are facing the problems of a lot of work, heavy workloads, low salaries, poor support systems; and of course, these consultants and contractors are luring the Government workers away with high salaries.

I also want to point out, however, that this heavy dependence on consultants and contractors was the outcome of both congressional

[1] See p. 49 for Dr. Hirschhorn's prepared statement.

decisions and EPA decisions early on in the creation of the Superfund program.

There were a lot of original assumptions about Superfund in 1980 and 1981, which certainly today appear unduly optimistic. These were assumptions about how big the program would be, how big it would become, how long it would be needed, and even assumptions about availability of technical expertise.

And what we have discovered in the last 5 years or so, particularly, is again that a lot of these assumptions are basically incorrect today, that we see Superfund now as a very, very long program. We have talked about Superfund existing for at least 50 years, and ultimately the costs being extremely high. We now estimate the total cost of clean-up for toxic waste sites at about $500 billion over these next 50 years. So there is a very large amount of business, obviously, for consultants and contractors.

Another area that we talk about, and I think it is very important, is that some of the contractor work seems to be inappropriate; that we see consultants and contractors working in what is called policy support and program support functions, and that this work seems inconsistent with the Office of Management and Budget's own policies, referred to in Circular A–76, which really require that contractor work not be inherently government. And I think we see a lot of activities in the conduct of the Superfund program where almost any normal person would expect Government workers to do these activities, and instead, they are being done by consultants and contractors.

It is true, EPA signs the documents, the policy statements and the checks, and thus officially makes the decisions. But it really is another reality out there, and we raise the question: Is the Government really in control of Superfund when nearly all the important information, the analyses and ideas come from consultants and contractors.

And that issue, I think, of real control, not just paper control, is a major issue to confront for a program of this magnitude and this environmental importance.

We also see a link between the slow pace of Superfund and the poor environmental performance of the program and the heavy dependence on contractors. I will not go into any details here, but we have documented this not only in this report but in previous reports. There are lots of mistakes made by consultants and contractors. And again, this is tied with an inexperienced work force, a lot of people moving around, and an inability of EPA itself to closely monitor and oversee the contractor work even when that contractor work, I might add, is appropriate for contractors, such as site clean-up work.

We outline some things in this report about how to solve the problem, and I think that is important, too, that we not only see a problem, but we see ways to solve the problem. Very briefly, one point we are making is that we see a way to reduce the dependence on contractors, and that very simply is to have some of this inappropriate work which is going on now by consultants and contractors be brought back into the Government.

There are certain kinds of activities—and let me give you some examples—the analysis of policies and creation of policy options;

the evaluation of contractor and EPA regional performance; communication with communities, people who live near these Superfund sites; evaluation of new clean-up technologies; preparation of reports to the Congress. These are all activities which are now currently being done by contractors, which we say could be brought back into the Government and have Government workers perform these kinds of duties which are inevitably inherently governmental. So this is one way to reduce dependence on contractors—shift the work back into the Government, some of it.

Secondly, improve the way the Government manages consultants and contractors. Clearly, in Superfund, we will always have to use consultants and contractors. The critical issue is how well EPA manages and controls the contractors. And in this regard we again suggest that there is a need for more people in the EPA regional offices, tighter management, closer review of contractor work—and clearly, one contractor should not be overseeing and evaluating the work of other contractors, which is a major problem——

Senator PRYOR. Is this happening?

Dr. HIRSCHHORN. Absolutely.

Senator PRYOR. Are we finding one contracting or consulting firm evaluating the work product of another firm?

Dr. HIRSCHHORN. Yes.

Senator PRYOR. Sometimes are those firms in competition with each other for these bids?

Dr. HIRSCHHORN. Not only are they sometimes in competition, but at other times, they work together jointly, so you have an industry that sometimes competes, but at other times are on what they call "team subcontractors"—they team up together—so there is a mixing of firms. I think that also should be of concern to people.

Third, we suggest some shifting of Superfund spending. This is a critical issue. If we are going to beef up the EPA staff, then what we conceive of doing is cutting the spending on consultants and contractors, and really dealing with the marketplace, because we have a marketplace now where the demand for people, technical experts, is far greater than the supply. We have had this explosive growth of spending on Superfund. So what we are suggesting here is a two-fold kind of strategy—cut the spending on the contractors; bring the marketplace back into better balance and simultaneously spend more money to beef up EPA's own internal technical and project management capabilities.

I will not go into detail, but we also suggest that EPA really has to re-think its clean-up priorities—what sites merit clean-up and when.

And lastly—and I think it is very important—we really endorse what the Inspector General at EPA has said. He said: "Superfund is particularly sensitive to fraud, waste and abuse." We agree. And we also agree with the IG's plea, really request, for more funding so that there can be more audits and inspections in the Superfund program. There is really very little right now.

So thank you. That is my summary.

Senator PRYOR. Dr. Hirschhorn, how did you and your office become interested in the issue of consultant use by EPA? What triggered that interest?

Dr. HIRSCHHORN. Well, it happened first because we started to look at individual sites early on. When we started to examine Superfund, we were looking at individual site studies and clean-up decisions. And what you quickly discover when you ask for the documents is that nearly everything has been done by contractors.

So when you start to study these reports and these decisions, you realize that all of the information is being obtained and analyzed and presented to the world through contractors. So inevitably—over really the entire lifetime of Superfund, we have been studying it—we inevitably had to deal with consultants and contractors. We would go to meetings, supposedly technical meetings, and inevitably the people presenting the Government side, the EPA side, were consultants and contractors. I mean, if they are not at the table, they quickly get to the table in one way or another.

Senator PRYOR. I have a great example that I am going to ask the EPA about in just a moment. A firm that set up a one-day meeting for 26 participants last September received a fee of $25,000 to set up this meeting. They prepared the speeches, the firm, not the EPA. They prepared the menu. They even prepared a little map here, to show the 26 delegates how to get to Amelia's Restaurant from their hotel.[1]

Dr. HIRSCHHORN. May I add to that story?

Senator PRYOR. They set the policy of the meeting, and they set the talking points for the meeting and they were private consultants. The danger of that is, and I am making light of it, is that this same firm also represents for a profit, some of the polluters. And to me, that is a conflict.

I want to congratulate you on your interest in this area, because for 10 years, I have tried to get someone interested. I never thought it would be OTA that would come and be an ally here. It seems like everyone says, well, this is just a problem, and it is will go away, and no one pays much attention. It is the conflict, working both sides of the street; it is the policy-setting by an unelected government; it is this unchecked system that is disturbing.

Excuse me, Dr. Hirschhorn.

Dr. HIRSCHHORN. I was just going to add to your story that I get invited to a lot of those meetings that you just described. I sit in my office sometimes, and I get these overnight mail packages, and I open them up, and they are from a contractor company, and when I open it up, it is the EPA letterhead. The invitations are also prepared by the contractors, by the way.

So, the contractors literally do everything.

Senator PRYOR. What do the 15,000 employees of EPA do?

Dr. HIRSCHHORN. They sign the checks and manage the contracts. There is a lot of movement of paper, a lot of meetings. But again, I think that is what our point is. This is a technical and engineering program, Superfund. And the substance of the program, the whole idea of protecting health and environment, the substance is being done chiefly by consultants and contractors, and the people left in the Government are increasingly sort of just moving paper around, taking care of——

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[1] See p. 87.

Senator PRYOR. EPA also has on the Federal payroll 600 lawyers. Now, that may be one of the problems with EPA these days. But with 600 lawyers, they are writing checks for millions of dollars to private law firms. I wonder what the lawyers do at EPA? Do you have any idea?

Dr. HIRSCHHORN. Well, they do some very legitimate work, I can say, in enforcement areas. But I sometimes say about Superfund, that there is too much litigation and not enough mitigation. But clearly, it is a very legalistic-oriented agency, and so it is with Superfund, also.

Senator PRYOR. Dr. Hirschhorn, I did not mean to badger you and I won't keep you much longer. Do you see in your assessment of some of these firms and contractors working at the same time for the private industry?

Dr. HIRSCHHORN. Oh, absolutely. There is no doubt about it that most, if not nearly all, of the engineering consulting firms that are getting this Superfund business simultaneously work for the firms not only that EPA regulates, but the very firms that we refer to as responsible parties—the companies, the industries that created the Superfund sites, and that are in some form of negotiation with EPA in terms of settlement and paying the clean-up costs.

Senator PRYOR. So it is both sides of the street?

Dr. HIRSCHHORN. Yes.

Senator PRYOR. Now, Dr. Hirschhorn, do you know if any of these contracts to these firms are competitively bid? Is there competition?

Dr. HIRSCHHORN. Sometimes, I would say. It appears at other times that there is not competition, or not so much, and in our report we give some data on what the actual prices are, so to speak, of some contracts, and some of the situations certainly look peculiar. One indicator that there may not be competition is when you see some contracts with very large amounts of money relative to exactly the same contract in another region, for example, of the United States.

So I think that one of the reasons we suggest putting more money into the Inspector General's Office is exactly for this reason, that is, more audits, more of that kind of activity is necessary to see how the procurement system is really working, whether there is competition, or whether the Government is paying too much at times.

Senator PRYOR. Dr. Hirschhorn, last year, I introduced a consultant registration bill that required consultants who worked for the Federal Government to simply state who their clients are. I think that is a very, very simple requirement. I file an ethics report every spring, and I state what my income is and if I am on any board or whatever, and it is out there for the public to see. By the way, I am on no boards, and my income is not as much as others.

But what do you think about something like that? You know, when I introduced this legislation, I thought it was going to sail through; I could not imagine anyone being against it. All of a sudden, the consultant industry came and said, "Oh, we can't disclose this. There is the privacy of whom we represent. We cannot tell everybody who we represent." But they are being paid Federal dollars, and they are working for the private industry.

In fact, EPA sent word through a Senator last year that it would just have to close down if my legislation were approved.

Do you see anything wrong with disclosure?

Dr. HIRSCHHORN. It seems to me that it is quite a sensible idea. I would point out that the contracting companies love to go to the industry people and talk about the Government work. I do not see what is wrong with the same firms telling the Government what their private industry work is.

So I think that is a reasonable idea, and I might also note one of the things we point out in the report is that sometimes we get these documents, and we know they are prepared by contractors, but there is no name.

Senator PRYOR. You know, there is another thing here that worries me. If you have private consultants and contractors trying to clean up the environment, getting all the Superfund dollars, on the "gravy train," so to speak, with very little oversight, what is the incentive to clean up the environment?

Dr. HIRSCHHORN. That is a good question.

Senator PRYOR. They do not want to clean up the environment. They want to stay there, drawing those dollars, in perpetuity. There is no inducement, no incentive, except to draw out this situation as long as possible.

Dr. HIRSCHHORN. Might I point out in fact that when mistakes are made at Superfund sites, the contractors essentially make more money because the work is constantly being repeated. We know of cases where we, at the request of Members, did some work at Superfund sites and were critical of contractor work. The net result was that the contractor made even more money in defending the original work and writing reports which were sent to Members to explain the original contractor position.

Senator PRYOR. Senator Stevens wanted me to ask this question: "In your report, under the section, 'Future Directions,' you state the need to reduce EPA's dependence upon contractors. One of your suggestions is to devise a way to attract and keep the best and most experienced technical specialists and program managers. Otherwise, contractors will lure them away with higher salaries and other inducements. Keeping in mind the present controversy over raising Government salaries, how do you recommend that we attract and keep the people with the technical experience and expertise?"

Dr. HIRSCHHORN. Well, clearly, we are in a situation where a lot of these people at EPA are very much technical specialists, scientists and engineers, and their salaries really are low relative to salaries being paid for those kinds of specialists. This is recognized, by the way, for physicians in other Federal agencies; I mean, there are mechanisms to pay certain kinds of specialists higher than normal Government salaries. So I think we have to look at salaries for EPA people, but I think there is also an atmosphere kind of question. A lot of people really want to work for the Government. A lot of people like the idea of serving the public interest. Then we get into the situation of morale and what is the environment in which EPA people work. Then, I think we are talking about the management at EPA, the administration of these programs, and

whether there is an atmosphere that is good, where people feel good about working for the Government.

I do not think it is money alone; I want to emphasize that. People leave EPA for other reasons. Lack of technical support is something we hear about, or secretarial support, or data systems, or computers—things like that. These people can go into the private sector and not only make higher salaries, but really have a more pleasant working environment.

Senator PRYOR. Dr. Hirschhorn, you pointed out to our staff an example OTA found regarding a consultant recommending a clean-up technology to which this consultant owned the rights.

Would you give us a little bit of information about that?

Dr. HIRSCHHORN. I have several such situations, but one that we mention in this report is a site in Florida which I thought represented several conflicts of interest. The responsible party, an industrial concern, was allowed by EPA to contract out, essentially, hire a contractor. Subsequently, that contractor study for the responsible party led to a clean-up approach which was essentially counter to Federal policy, but saved several millions of dollars for the responsible party. Simultaneously, the solution selected by the contractor was in fact a solution that they would implement. So the PRP, the responsible party, saved several millions of dollars, and the contractor who performed the study which led to the EPA decision ultimately would get the clean-up job itself, which was probably valued at about half a million dollars.

Senator PRYOR. Are there a lot of examples like this?

Dr. HIRSCHHORN. I think the more one would look, the more one would find.

Senator PRYOR. You have performed a real service, and I want to thank you. We look forward in the future to maybe hearing from you again. We express our gratitude to you, Dr. Hirschhorn.

Thank you.

Dr. HIRSCHHORN. Thank you, Senator.

Senator PRYOR. I am now going to call Mr. David O'Connor, Director of the Procurement and Contract Management Division of the Environmental Protection Agency, and Mr. Henry Longest, Director, Office of Emergency and Remedial Response, that is, the Superfund program, of the Environmental Protection Agency.

Mr. O'Connor, we have your statement. I wonder if you might summarize your statement, and then we will have some questions.

TESTIMONY OF DAVID J. O'CONNOR, DIRECTOR, PROCUREMENT AND CONTRACT MANAGEMENT DIVISION, U.S. ENVIRONMENTAL PROTECTION AGENCY [1]

Mr. O'CONNOR. Yes, Mr. Chairman, I would be delighted to do that.

Let me begin by thanking you for the opportunity to testify today on EPA's use of consulting service contracts.

Consulting service contracts have been a major and longstanding concern of this Subcommittee. Specifically, Mr. Chairman, we know that you are concerned about issues such as the degree of competi-

[1] See p. 54 for Mr. O'Connor's prepared statement.

tion for these contracts; measures to protect against conflicts of interest, both those that are real and those that are of an appearance nature; and you are concerned about effective monitoring of these contracts.

EPA relies heavily on the use of contractors to accomplish its mission. We recognize and appreciate your concerns, and we share them. We share, in fact, many of the frustrations that have been alluded to already this morning.

On this issue of competition, we fully understand the negative appearance that is conveyed when agencies make extensive use of sole-source contracts. EPA avoids sole-source contracts. I am very proud of our record. In each of the past 2 fiscal years, 97 percent of EPA contract dollars were awarded competitively. I do not believe you will find a better record at any major Federal agency.

We are equally concerned about this issue of conflict of interest. We know that the integrity of our contracting process and the objectivity of our decisions are absolutely dependent on avoiding conflict of interest, and we take steps to do so.

As a first line of defense, if you will, we make full use of the conflict of interest provisions that currently exist in the Federal procurement regulations. These provisions are designed to identify conflict of interest situations before contracts are awarded as well as those that arise during contract performance.

I was very happy to learn recently that the OMB is drafting new conflict of interest provisions for consulting service contracts that are considerably stronger than those currently available to us under the regulations. I applaud that, and I assure you that we will welcome these stronger provisions.

In addition to those provisions that are found in the regulations, we have developed several in-house specific conflict of interest provisions for our Superfund program. They are designed to ensure that there is objectivity around our Superfund decisions and to protect our enforcement capabilities.

For example, our remedial contractors who hold contracts that cover certain parts of the country are not permitted to compete on contracts that are offered by the private sector or by State and local governments in that area. This restriction remains in place for a period of 3 years after the completion of their contract. We make it clear in those provisions that this applies not only to the prime contractor, but to subcontractors and in fact individual employees.

On the issue of oversight and contract management, I would like to point out that our contract workload has more than doubled in the last 4 years, and we certainly have not been without growing pains. However, the agency is taking aggressive steps to ensure that we can effectively monitor these contracts. I will point out a few examples.

In my own procurement organization, we have increased our staffing commensurate with the increase in the contract activity. We have restructured the organization to emphasize contract management.

In previous years, we had the same contracting officers responsible for awarding contracts who were also responsible for managing contracts. And, as is common in procurement activities, the con-

tract management responsibility was often overlooked. We now have significant sections in our organization whose sole responsibility is the management of contracts.

We have set up a financial analysis capability in the division where CPAs who work directly with our contracting officers have as their sole responsibility the financial overview of our major contractors during performance of their contracts. This staff actually spends considerable time in those contractors' accounting departments, looking at their billing practices, their purchasing procedures and other activities.

Finally, we are placing contracting officers around the country in our regional offices where they have not previously existed. The purpose is for those contracting officers to be in close proximity with our Superfund program managers, to give them much closer support as decisions are made on the Superfund sites.

I am very happy as well that many initiatives have been taken and are also underway in our program offices. For example, there are a great number of training courses that are being developed to assist particularly what you have correctly identified as the many young project officers in the program. We have developed and are now implementing a number of automated tracking systems that will help senior managers keep much better track of the activity that is taking place under contract.

Many of our program offices, including Superfund, have established centralized contract management units within the program offices to help them identify and resolve contract management problems.

I would say that perhaps the most important development in the last few years has been a much greater awareness at the senior management level that contract management is indeed a very serious issue, and that there needs to be a great deal of accountability at the senior management level.

Mr. Chairman, I would conclude my summary there, and we are prepared to respond to your questions.

Senator PRYOR. Mr. O'Connor, thank you.

Mr. Longest, are you going to summarize your statement as well?

Mr. LONGEST. I would like to just make a few comments. I would be happy to have the statement provided for the record. I believe you have a copy of that.[1]

Senator PRYOR. It will be inserted in the record.

TESTIMONY OF HENRY L. LONGEST II, DIRECTOR, OFFICE OF EMERGENCY AND REMEDIAL RESPONSE (SUPERFUND), U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. LONGEST. Two comments. One, I would like to echo what Mr. O'Connor said. We have made a lot of what I consider improvements in the management of the Superfund program beginning in 1986 when I came over to Superfund to deal with management of the program as well as management of contracts.

The other thing I would like to say just for the record as a generic comment is that we in the Office and myself specifically are well

[1] See p. 60.

aware of the Federal procurement regulation which prohibits contracting of inherently governmental functions, and that specifically deals with activities that require exercise of discretion in applying Government authority, and value judgment in making decisions for the Government. And I personally feel that we adhere to that. There are those who have implied that we do not. I feel that we do. There may be some gray areas, and I am willing to discuss that.

Senator PRYOR. I would like you to repeat something, if you would. Tell me once again the law, the statute, prohibiting the contracting out of a Government service.

Mr. LONGEST. Yes.

Senator PRYOR. Tell me that again, please.

Mr. LONGEST. As I understand—these are my words—in the Federal procurement regulations, it specifically talks to a prohibition of contracting for inherently governmental functions. And my summary of that is that these functions include activities which require, first, exercise of discretion in applying Government authority–an example would be we decide when a guidance or a policy must be written, not a contractor.

The second point is value judgment in making decisions for the Government. If a contractor does analysis and provides us information or a draft, the final decision is the responsibility of the Government; and my position is we make the final decision.

Senator PRYOR. Do you think submitting an annual report to Congress is an inherently governmental function?

Mr. LONGEST. Would you repeat it, please? My mind slipped, there.

Senator PRYOR. Yes. Do you think it is an inherent responsibility of an agency of the Federal Government to annually provide the Congress with a report on their activities? That is a governmental function, is it not?

Mr. LONGEST. Very definitely. By statute, the amendments clearly state that we must provide an annual report to Congress.

Senator PRYOR. Okay. Did you know that in 1989, January the 26th, that the annual Superfund report to Congress was drafted by a consulting firm, and in fact, that consulting firm was paid $260,000? It was on their letterhead; it was then transferred to the EPA letterhead and sent to the Congress.

Mr. LONGEST. I cannot vouch for the actual dollar amount. I do know——

Senator PRYOR. Well, I can.

Mr. LONGEST. I do know about the report, because it comes out of my office.

I would just like to add that the report is not just a product of a consulting firm. It is the product of an agency work group that we have. Every office in the agency is involved in that report.

Senator PRYOR. You are getting deeper into it, Mr. Longest. I will tell you why. If you have a work group that works with a consulting firm and exercises so-called "control" over that report, why do you need a consulting firm in the beginning? Why do we pay a consulting firm $260,000 for a report to Congress that you are supposed to submit? I do not understand it. Educate me.

Mr. LONGEST. It comes down to workload. There are many things you have to do. If you recall, SARA was passed in October of 1986.

There were many mandates in there for things that the agency has to do, including over 50 delegations following the Presidential delegation to the Administrator, delegating down within headquarters in the region. There were regulations that we had to work on, there were guidances we had to work on.

So when you look at the total workload, you have to selectively decide which things are done totally in-house and which things are supported by contract. So it is a matter of resources, is the answer to your question.

Senator PRYOR. So Mr. Longest, you say that this report to Congress, the annual report required by law on the Superfund from EPA, was the product of your agency.

Mr. LONGEST. I would say it was a combination of the product of our agency with support by a contractor. And I even personally rewrote some of the paragraphs in the summary.

Senator PRYOR. Mr. Longest, I hope you will not get in too deep there, because I think that the consulting firm report on their letterhead, compared to the EPA letterhead report that comes to Congress—it is my understanding that there were roughly three words changed—there were two "ands" and one "the."

Mr. LONGEST. You are talking about in the total report?

Senator PRYOR. Yes.

Mr. LONGEST. But that must be about the third draft of that report. We had several drafts of it that we went through. When I made some specific changes was in the very first draft of the report.

Senator PRYOR. The firm that prepared this report to Congress that you put your name on, do you know who else they represent?

Mr. LONGEST. I do not know everybody they represent, no, sir.

Senator PRYOR. Do you know what possible conflicts of interest this firm may have had in making this report?

Mr. LONGEST. No, specifically——

Senator PRYOR. Do you know their clients?

Mr. LONGEST. No, I do not know all their clients.

Senator PRYOR. Did you ask them?

Mr. LONGEST. No, I did not ask them all their clients.

Senator PRYOR. Did you know that they might represent some of the major polluters of this country?

Mr. LONGEST. By speculation, they could have.

Senator PRYOR. You did not ask them?

Mr. LONGEST. There is another issue here. They get the contract work through EPA through Federal procurement requirements that they can speak to. Once we get the contractor, we know the areas they are allowed to work in, and the work statements are within that agreement.

Senator PRYOR. Okay, let us shift now to Mr. O'Connor.

Mr. LONGEST. Sure. Thank you.

Senator PRYOR. Mr. O'Connor, this company, IFC, Incorporated, to which the taxpayers paid $260,000, do you know who their clients are?

Mr. O'CONNOR. No, sir, I do not know all their clients.

Senator PRYOR. Did you ask them?

Mr. O'CONNOR. No, sir, we did not.

Senator PRYOR. Did they sign any sort of a statement, stating their clients?

Mr. O'CONNOR. No, they did not sign a statement.

Senator PRYOR. You have mentioned conflict of interest. You are very proud of the lack of conflict of interest. What conflict of interest customs, traditions or laws govern the granting of these contracts?

Mr. O'CONNOR. There are a number of what we refer to as organizational conflicts of interest, and you have alluded to several possible conflict of interest situations. There are some obvious ones in the Superfund program. We do not want to contract for the clean-up of a site when that firm might be a responsible party for that site.

As you are probably aware, Mr. Chairman, the conflict of interest provisions in the regulations rely upon the contractors to tell us whether there is a conflict of interest.

It is not a situation where, for every single work product that we issue to a contractor after the contract is awarded, we get an affirmative statement that there is not in fact a conflict of interest. They are on notice through the provisions of the contract that they are to notify us on each assignment if they see a conflict of interest.

Senator PRYOR. So you are letting them self-police their industry, right? You are leaving it up to them.

Mr. O'CONNOR. It is self-policing, and that is obviously the case with many, many documents and processes in day-to-day life.

Senator PRYOR. The fact of the matter is we have no regulations, Mr. O'Connor, that deal with conflict of interest in awarding these contracts. For example, all you had to do was to look at the annual report of ICF and read their list of clients, their solicitation of private companies when this same firm, a multi-million-dollar company, is writing the report for EPA and the Superfund to submit to Congress.

Now, here is an advertisement, and I do not take this magazine, in "HAZMAT World," "Hazardous Materials Management Issues, Technology and People." Asbestos abatement, et cetera. All right. Right here is a big ad from ICF, this is the company, now, that wrote the report to Congress, that you transferred to your letterhead, to whom we paid $260,000.

> Unlike other firms, we understand not only the technical engineering aspects of hazardous waste management, but also the framework of regulatory requirements, enforcement and public involvement in which our clients must operate. Satisfied clients who come back for the same exceptional work we delivered on a prior task have made us the fastest-growing firm in the industry.

Well, they ought to know a lot about the regulations because they are helping to draft the regulations; they are helping to set the policy of the Environmental Protection Agency. They are working both sides of the street, and neither of you know it, and apparently, neither of you care.

Mr. O'CONNOR. Mr. Chairman, we do care, and we share many of the concerns that you have alluded to.

I am disturbed by the "revolving door"; I wish there were stronger provisions to deal with that situation. But the fact that one of our contractors has clients in the private sector does not in itself

mean that there is a conflict of interest. The fact that they were involved to some extent in preparation of a document that was submitted to Congress does not necessarily represent a conflict of interest. It is, I am sure, a public document that is available to anyone who wants to look at it.

Mr. LONGEST. I would just like the record to show that I do care about prevention of conflict of interest.

Mr. O'CONNOR. Also, Mr. Chairman, I would point out that there are the regulations on conflict of interest, and we use the same regulations and the same procedures that all agencies do with respect to conflict of interest.

Senator PRYOR. Which is not much.

Mr. O'CONNOR. As I said in my opening comments, I look forward to some stronger regulatory provisions.

Senator PRYOR. I am sorry I am raising my voice to you two gentlemen, and I know that you are well-meaning, but I guess I am going through 10 years of frustration on this issue. I cannot get anyone interested in it. I cannot get anyone to see what is happening to the Federal Government; private, independent, profitmaking consultants are setting the policy of this Government, and there is an apparent conflict of interest. I cannot see why you do not see it.

Mr. LONGEST. May I add something, Mr. Chairman?

Senator PRYOR. Yes, sir.

Mr. LONGEST. I understand your frustrations. I have managed programs in EPA since EPA was formed, in fact, going back to the construction grants program, so that I have dealt with these issues for many years.

We have to, as program managers, first deal with the programs that we are given and the resources that we are given.

The second thing is, when we deal with contracting out, we have to think in terms of getting the job done as well as management of the contracts. I think the record shows, in my testimony, that we have done a great deal over the last 2 years to improve the management of the contractors in terms of training not only the project officers–under David O'Connor as the contract officer, I have what we call project officers and work assignment managers——

Senator PRYOR. Let me stop you just a moment.

Mr. LONGEST. Yes, sir.

Senator PRYOR. In those sessions, when you train the contract officers, now, think about this, when you train your officers of EPA, are you not hiring consultants to train these officers?

Mr. LONGEST. One of the courses that we have developed—yes, that is true——

Senator PRYOR. You are hiring outside contractors to train the officers who are going to be granting the contracts and policing the contracts.

Mr. LONGEST. But we develop the course and what is in the course. Again, it comes down to resources. We have to consider——

Senator PRYOR. You have 15,000 employees. What do they do?

Mr. LONGEST. I do not have 15,000 employees. The agency has 15,000 employees.

Senator PRYOR. The agency has 15,000 employees, and you have 600 lawyers. Surely, you have someone who can train a few con-

tract officials on monitoring and granting contracts. Please tell me you do.

Mr. O'CONNOR. We do, Senator.

Senator PRYOR. You do?

Mr. O'CONNOR. We do. We have a number of training courses that my own people put on for project officers. The point is that there are, in our latest inventory, somewhere on the order of 5,000 or 6,000 individuals who are in need of training as a minimum, not to mention follow-up training, and quite frankly, providing that much training is beyond the capability of my staff.

Senator PRYOR. So you hire contractors——

Mr. O'CONNOR. We develop courses in-house, and we have contractors who put those on; yes, we do.

Senator PRYOR. Are these the same contractors that will be getting contracts from the EPA for other activities, for example, Booz Allen.

Mr. O'CONNOR. To the best of my knowledge, the firms we use are not recipients of other types of EPA contracts. I cannot state that with certainty, but I really do not know of any.

Senator PRYOR. Okay. I urge you really to look at what I call the "fourth branch" of our Government, and that is consultants. For example, I made fun a while ago of Booz Allen being paid $25,000 to set up a one-day meeting for 26 people across the river here in Crystal City; they prepared the agenda, the lunch, and the talking points. The policy, basically, I think, for that meeting was set by a private contractor.

Booz Allen also was given a recent contract for $35,000 to determine whether other contractors have been reporting costs charged to the Government accurately.

ICF, for example, was given a recent contract to read EPA documents, to read your documents that EPA prepares. A private contractor who represents energy companies, oil companies, private interests, assisted EPA staff in briefing top EPA management. That is, ICF, Incorporated, $525,000.

ICF, Incorporated, wrote job descriptions for Federal employees in your agency.

ICF, again, wrote a statement of work I guess the contractor now is telling EPA what it ought to be doing. ICF wrote the statement of work for another contract, which means ICF was describing the job another contractor is going to be bidding on. That little statement, by the way, was $20,000, charged to the taxpayer.

ICF wrote regulations, a check for $80,000, written to ICF, to write regulations on how citizens can receive Government funds so they can hire experts to help them understand local and community hazardous waste matters.

It seems to me like that would be, Mr. Longest, an inherently governmental function, not the function of a private, profitmaking contractor.

I am taking just a few of these that we have pulled at random.

Booz Allen and Hamilton, $90,000. Booz Allen was hired to make a videotape to help EPA provide information to communities. Due to indecision on EPA's part, the tape was never produced, but $90,000 was allocated to Booz Allen, with nothing to show for it.

Here is a good one. The occupational, health and safety staff issued a work assignment because OSHA wanted to change its name. So they hired a company, Booz Allen, to help them in coming up with a name change. It was changed to Environmental Health and Safety Division, if I am not wrong. That was $20,000 to Booz Allen.

My point is this. Mr. O'Connor, you talked about you have a 97 percent competition rate. How does Booz Allen get all this? Don't they get one, big lump sum at the beginning of the fiscal year, and then all you do is send them over a requisition, and then they do all these other, little things, so in these contracts you have no real competition. You know this, but you expect us to believe it.

Mr. O'CONNOR. Mr. Chairman, we compete those contracts which you have referred to as management support contracts, which there are a number of them around the agency. And yes, we do compete for a large capacity of hours to provide us a wide range of services, primarily because we need the ability to perform those functions quickly.

There are thousands of work assignments that go out of EPA every year. To treat each of those as a separate competitive procurement, with the 5- to 9-month procurement lead time that would go along with it, would sink, in my view, the agency.

So it makes good sense to consolidate some of those similar activities into contracts that give us the ability to compete it up front, and then have the work performed in a very timely manner.

Senator PRYOR. It is sort of a checking account, though; isn't it a checking account?

Mr. O'CONNOR. It is a contract, as you stated earlier, that typically has a minimum and a maximum amount. And we order against that contract as long as we stay within that maximum amount.

Senator PRYOR. Okay. In September 1988, this bulletin is published by the Emergency Response Division of the Environmental Protection Agency.

Mr. LONGEST. That is right, there is an Emergency Response Division, yes.

Senator PRYOR. You did not write this. You paid Booz Allen and Hamilton $9,000 to write this. They just drew from their checking account. Is this the way the system works?

Mr. LONGEST. Well, I am not quite sure——

Senator PRYOR. I am talking about thousands——

Mr. LONGEST. I am not quite sure about your characterization of withdrawing from a checking account. The document was written to assist the regional on-scene coordinators in their work. Our staff are the ones who decide what goes in it, what it is we want to say; yes, in answer to your question, they produce the product.

Senator PRYOR. But your name is on it.

Mr. LONGEST. That is correct. But it is our product in the sense that it is what we wanted to say and how we wanted to say it.

Senator PRYOR. Why didn't you write it?

Mr. LONGEST. Again, it gets down to resources. There are many things that we have to do, and part of our resources are contract dollars, so we have to look at both people resources and contract dollar resources, and try to make a determination of which func-

tions are inherently Government that we should perform; which decisions do I have to make.

Senator PRYOR. You don't want to make any decisions.

Mr. LONGEST. That is incorrect. We try to use the contractors to do a lot of the analysis, the drafting, so we have the time to make the decisions.

Senator PRYOR. Now, Mr. O'Connor, you have 15,000 employees in the Environmental Protection Agency. Don't you have one, just one, of those 15,000 employees who could set up a one-day seminar for 26 people?

Mr. O'CONNOR. I am sure you could find somebody who could do that, but I probably have 20,000 people asking me don't I have one person who can do one of many, many things, Mr. Chairman.

Senator PRYOR. You know, we heard a lot last fall about "spin doctors" in the Dukakis and Bush campaigns for the Presidency. We have not heard about Willie Horton lately, and I have not heard much talk about the Pledge of Allegiance either. But the "spin doctors" are still with us; they are just in a little bit different form today. The "spin doctors" today are the consulting firms. They are the private contractors. They are the firms that our Government hires, and they end up setting the policy after they have put their "spin" on the issue.

The problem with their setting the policy is they represent adverse interests to the mission of your agency not only at your agency, but throughout the Federal Government. They are unelected, unaccounted for, and with very little oversight once that contract is awarded to them.

Let me, if I might, ask a question in another area, about the attorneys employed by the Environmental Protection Agency. If you would, I would very much like for the record the names of the law firms you hire, as well as the dollars spent on the private law firms and what they did for those services. If you would submit that for the record, Mr. O'Connor, I would appreciate it.[1]

Mr. O'CONNOR. Mr. Chairman, if I could make sure I understand your question. You mentioned that we have 600 EPA attorneys, but then you referenced outside law firms.

Senator PRYOR. Yes, sir.

Mr. O'CONNOR. Are you speaking of contracts that we may have with outside law firms, or—I did not catch the connection.

Senator PRYOR. I know you have 600 lawyers; they are Federal employees, is this correct?

Mr. O'CONNOR. I do not know what the number is. Certainly, we have quite a few.

Senator PRYOR. In addition to the 600 lawyers who do legal work for you, I would like to know the number of lawyers, the names of the lawyers, the law firms, and the dollars that are expended for those services in addition to the legal work performed by the 600 in-house Federal lawyers.

If you would be patient for just a moment. [Conferring with staff.]

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[1] See pp. 88 and 90 for a letter by Senator Pryor and response by Mr. O'Connor.

Mr. O'Connor and Mr. Longest, I am not going to pursue this line of questioning with you any longer. I also want to apologize for maybe getting a little bit excited about this, but I do get excited about it; in fact, I get angry about it. I get angry because I think the poor taxpayers and the Congress are being duped and I think we are being taken for a ride. I think policy is being set in the private sector.

It worries me, and it also worries me that no one seems to care.

Do you have any final statements, Mr. Longest?

Mr. LONGEST. Well, I would just like to respond to your comment. I know it is a generic comment, and I do not mean to take it personal, but I must, having managed Federal programs for many years—but I do care. I do feel that any policy that comes out of my office—and I do not make all policy; many of my policy is recommendations to people that I work for, and I care very much about everything that goes under my signature, and I care about everything that I recommend to everybody. I care about the management of the Federal dollars, and I will continue to care about that.

In closing, I would just like to make the comment that our new Administrator made a commitment in his hearing that he would do a study of the Superfund programs, the balancing of contract versus in-house personnel, and of course, whomever he designates to do that study will work very closely with him, and then he will make a recommendation to the Congress.

Thank you.

Senator PRYOR. Thank you, Mr. Longest. Thank you very much.

Mr. O'Connor.

Mr. O'CONNOR. Just to add to that, I would like to state that a lot of the sentiment that you have expressed, we share. However, we do take our jobs quite seriously.

Senator PRYOR. In no way am I challenging your credibility or your desire to serve the public. I think that we have different philosophies on how that service can be performed. I do want to thank both of you for appearing and being very frank and candid before the Subcommittee this morning.

You are excused. Thank you.

I am now going to call on the General Accounting Office Mr. Bernard Ungar, Director, Federal Human Resource Management.

Mr. Ungar, how are you this morning?

Mr. UNGAR. Fine, thank you, Mr. Chairman.

Senator PRYOR. You have a statement, and if you would like to, you may feel free to summarize that statement at this time.

I see that you have Mr. Draver, Mr. Donahue, and Mr. Cormier with you. We appreciate the attendance of all of you this morning.

TESTIMONY OF BERNARD L. UNGAR, DIRECTOR, FEDERAL HUMAN RESOURCE MANAGEMENT ISSUES, GENERAL GOVERNMENT DIVISION, GENERAL ACCOUNTING OFFICE,[1] ACCOMPANIED BY TERRY DRAVER, EVALUATOR-IN-CHARGE, RON J. CORMIER, ASSISTANT MANAGER, AND KEVIN DONAHUE, ASSISTANT DIRECTOR, RESOURCES, COMMUNITY AND ECONOMIC DEVELOPMENT

Mr. UNGAR. Thank you, sir.

We appreciate the opportunity to come here this morning and present the information that we have collected.

GAO has reported in the past on many aspects of the Environmental Protection Agency's contracting, including its use of consulting services. We have identified the under-reporting of consulting services contracts and contract management weaknesses which can result in increase costs to the Government, and concluded that management improvements were needed.

EPA has taken steps to improve its management. However, its focus continues to be on getting the work completed under a contract without placing enough emphasis on sound contract management and cost considerations.

Now I would like to turn, Mr. Chairman, to the chart that appears behind you and give you a little information on the extent of contracting and consultant activity at EPA. We used fiscal year 1987 data because that was the most recent year for which we could get complete data on obligations.

What that chart shows is that for fiscal year 1987, the total EPA budget was about $2.6 billion; the total contracting activity amounted to close to $1 billion; the consulting services that EPA reported to the Congress were about $16 million; consulting services reported to the Federal Procurement Data System by EPA were about $10 million; and the consulting services total amount, if you use the Cabinet Council's definition, was about $168 million.

There is yet another figure that we learned about that is not on the chart. In the summer of 1988, EPA reported to OMB spending about $72 million on consulting services in fiscal year 1987, although we are not quite sure how that figure was derived.

The under-reporting stems largely, in our view, from the ambiguity in the consulting services definition and varying and narrow interpretations of the definition by EPA personnel. Reporting systems' limitations—that is, FPDS reporting systems' limitations—also contribute to the under-reporting.

I would like to focus for a few minutes on the problems we found at EPA in reporting consulting service contracts.

We looked at eight contracts not classified as consulting service contracts to determine whether consulting services were involved. In our opinion, six of the eight contracts should have been classified as consulting services, and the other two appeared to have been appropriately classified as other than consulting services.

We also noted that none of the five contracts covered in our July 1988 report on Superfund contracts were classified as consulting

[1] See p. 66 for Mr. Ungar's prepared statement.

services contracts even though they appeared to us to involve consulting services.

We made several observations on the definitional issue during our review. First, agencies have a great deal of latitude in assigning product service codes to contracts. These are product service codes that are used under the Federal Procurement Data System reporting program. Several contracts with similar work statements were coded differently. Thus, the reliability of the coding process is questionable.

Second, EPA has obtained approval from OMB to use agency-specific codes for the purposes of FPDS. It is unclear how these codes relate to and interface with the generally-available codes for the purposes of reporting consulting services.

Third, EPA has taken a narrow view of the consulting service definition. This has resulted in under-reporting. EPA's narrow view appears to be based on the belief that generally those contracts that relate to just broad policy matters are for consulting services.

Fourth, considerable ambiguity exists in the relationship of OMB circulars for consulting services, which is A–120, and commercial activities, which is A–76, to each other and to how the exclusions to Circular A–120 are to be applied—that is, the exclusions to the definition of the consulting services.

Until the definitional problems and reporting systems' limitations are resolved, we believe that more accurate reporting of consulting services is unlikely.

Senator PRYOR. Would you make that statement again, please?

Mr. UNGAR. Yes, sir. Until the definitional problems and reporting systems' limitations are resolved, we believe that more accurate reporting of consulting services is unlikely.

EPA's Inspector General has submitted statutorially-required evaluations of the agency's progress in establishing effective management controls over consulting services and for improving the accuracy and completeness of the reported information. However, we found that the Inspector General reviewed only those contracts identified as consulting services by contract officers, and thus could not determine the full extent to which other EPA contracts should have been but were not reported as being for consulting services.

The Inspector General's Office has informed us that they have adopted a new approach that will rectify this problem.

Mr. Chairman, that concludes my summary. We would be happy to respond to any questions that you might have.

Senator PRYOR. So the EPA Inspector General is about to do what?

Mr. UNGAR. The Inspector General has adopted an approach that will involve looking at a wider array of contracts than those that are specially labelled as consulting service contracts by EPA. In other words, in the past, EPA has only identified a very small number—as you can see with the $10 and $15 million—that they have labelled as consulting services. In the past, those are the types of contracts that the Inspector General has looked at in response to the statutory requirement.

However, in the future, they did say that they will look at a wider array of contracts so that they could identify those that

might be consulting services contracts that were not labelled as such by EPA.

Senator PRYOR. The definition has always been a problem with the consultants, always.

Mr. UNGAR. Yes, sir.

Senator PRYOR. We have dealt with that for years, and I will not go into that now. Do you think that EPA, or any other Federal agency, has sufficient conflict of interest procedures or regulations to follow to identify potential conflicts of interest in hiring particular firms?

Mr. UNGAR. Mr. Chairman, I am not familiar with all the details of the requirements. My understanding is that the real onus is on the contractor to identify for the Government agencies——

Senator PRYOR. Self-policing.

Mr. UNGAR. Right. And that then it would be up to the agency to whatever extent it determines appropriate to follow up to look into what might be questionable or problem areas.

Senator PRYOR. Do any of you gentlemen at the table have anything further to add on this?

Mr. DONAHUE. Mr. Chairman, we have a report that will come out probably in about 6 weeks on conflict of interest, being done for a committee on the House side.

Senator PRYOR. Good. I will look forward to getting that report.

Do any of you gentlemen realize that a couple of years back that you wrote a report entitled, "GAO Report: Clearer EPA Superfund Program Policies Should Improve Cleanup Efforts"? Are any of you familiar with that? Did you know that EPA, upon receipt of that report, hired Booz Allen and Hamilton and paid them several thousand dollars to look at that report and summarize it? Do you think anyone at EPA knew that Booz Allen and Hamilton also represents foreign governments, oil companies, and energy people? Do you think that EPA asked that question of Booz Allen Hamilton? Does anyone know?

Mr. UNGAR. Mr. Chairman, I am not aware of that particular case. We do know, though, that in the past, EPA has asked the contractors to respond or address some of the things in the GAO reports. But on that particular one, I am not familiar—I guess we are not.

Senator PRYOR. I think, too, when I write a letter to them, I am not sure, but I imagine if Senator Pryor or Senator Stevens or Senator Smith writes a letter to the EPA, I wouldn't doubt that they call Booz Allen and Hamilton to get a response. I guess that is the way they do it.

Mr. DONAHUE. I think what they do is if Booz Allen and Hamilton or anybody else—if they do not tell them, they do not know.

Senator PRYOR. Pardon?

Mr. DONAHUE. If Booz Allen does not tell EPA that there is a potential conflict or a conflict, they will never know.

Senator PRYOR. EPA will never know.

Mr. DONAHUE. Correct.

Senator PRYOR. Or the Department of Energy will never know, or the Department of Defense—Booz Allen and Hamilton works for every department of Government. They represent everyone.

They represent, for example: Chrysler, McDonnell Douglas, Department of Defense, Grumman, Ford, Aerospace, MCI Telecommunications, Bell Atlantic, NASA, Veterans' Administration, Department of Transportation, Department of Justice, Department of Labor, Department of Agriculture, OPM, Federal Emergency Management Agency, industrial manufacturers, foreign governments, and oil, gas, and chemical companies. They are the government, they are setting the policy for the government, and they are getting rich on it. And no one seems to even ask what they do and who else they represent.

Mr. UNGAR. Mr. Chairman, I hate to be the one who comes to EPA's defense. I do think I should point out, though, that there is one constraint that EPA is operating under, and that is that every year since fiscal year 1982, as far as I can recall, their appropriations for the Superfund program have a limitation on the amount of money that it can spend on in-house administrative expenses.

So in effect, if my understanding is correct, they are limited to, in effect, I think it is in 1989 or 1990, the limitation is 13 percent of their budget or thereabouts. So they had no option, really, in a number of cases to go out to other organizations. Now, that does not necessarily mean that the particular tasks that you have identified are the ones that should go out to contractors. But on the other hand, they have had sort of a constraint placed upon them which they have had to deal with.

Senator PRYOR. Yes, sir.

The private industry is really doing the work of the Federal Government. We have just found, for example, a U.S. Postal Service contract in which they hired a firm to study their health benefits program. They are paying them $239 an hour, and the maximum amount set in the contract is $480,000.

That is, once again, just a part of the problem. We find so many of these contracts, and the biggest concern, I think, is the conflict in the policy that is being set.

Are there any further comments, Mr. Ungar? Mr. Ungar, I have the greatest confidence in the General Accounting Office, you know that.

Mr. UNGAR. Yes; thank you, sir.

Senator PRYOR. I think if you all ever close down, we might as well just close the Government, because you have really performed a great service.

Could you fellows give me any advice on what to do now? Tell me what to do next, just between you and me. No one will quote us or anything. [Laughter.]

Mr. UNGAR. Well, sir, are you talking about the whole consultant area?

Senator PRYOR. Yes, the whole issue. I am just with a draft of a new definition.

But again, I think the way the definition is worded is critical as well as the exclusions and the relationships to A–76 in getting a good head count. To the extent that the definition is clear and is appropriately applied by the agencies, the IGs will then be in a position to look at those contracts. I think that would be a few steps in the right direction.

Mr. Draver.

Mr. DRAVER. Just one other thing. With respect to the definition, assuming you can get a definition that is universally accepted, to apply it, you need some training. And we have talked to OMB about that, and even with EPA, because the few training documents regarding how a contract officer should classify consulting services are basically lifted from either Circular A-120 or from the regulations.

There needs to be more consistent training that develops and presents a rationale for classifying consulting services that everybody accepts, including the Inspector General.

Senator PRYOR. Mr. Draver, do you think that we can rely on self-policy of the consulting industry? I mean, do you think they are going to self-police themselves?

Mr. DRAVER. I think there needs to be a check. We certainly have not done too much in that area recently, but I think there clearly needs to be a check, and I think perhaps that could be something that the Inspectors General in each department could be tasked with as one of their responsibilities.

Senator PRYOR. You see, lobbyists register.

Mr. DRAVER. Yes, sir.

Senator PRYOR. Lobbyists register, and my legislation would require consultants to register if they are going to do private sector work. In addition they would be required to disclose their clients. That is certainly not much to ask.

Mr. UNGAR. Yes, sir. Another thing I could point out, in a number of cases including some contracts at EPA, when a contractor bids on a contract they frequently identify in the material that they submit work they have done and are doing for other organizations. And that information is readily available to the agency to look at. And of course, they describe, as you pointed out in the annual report, the type of work and their accomplishments. So as a minimum, the agency would have that information to look at, without having to even do an in-depth audit, to look and compare to the statement of work and so forth.

Senator PRYOR. You know, if a Government agency required a potential consultant who was bidding on a good, juicy contract to submit to them their annual financial report, the same report given the potential clients out there that they are trying to lure in from the private sector, that would at least be a start, because then you could see who they represent to some degree.

Mr. Donahue, do you have any advice for us here?

Mr. DONAHUE. Well, the General Accounting Office would be a little bit amiss if we did not mention cost. In our work on Superfund, we looked at 43 sites. In 22 of those sites, EPA determined that there was inadequate or less than adequate performance by the contractors. In 18 of those cases, they accepted the cost; they did not question the cost at all. In four cases, they questioned them. The remedial project officer out in the field questioned it, brought it to higher authority, and they said, "We have no choice but to pay it."

EPA has to draw the line; they have to make an issue of cost, because right now, they are accepting whatever the contractors send in.

Senator PRYOR. And that was at 26 sites?

Mr. DONAHUE. Twenty-two sites where it was less than adequate performance.

Senator PRYOR. All right. The same contractors that were charged with that mission, did they continue with the contracts? Are they still doing the work?

Mr. DONAHUE. Yes, sir. They were not challenged. They questioned it, and just accepted it.

Senator PRYOR. They are still getting the checks.

Mr. DONAHUE. In other words, the remedial project officer questioned that they said that work was less than adequate, but they still paid the cost, the full cost.

Senator PRYOR. They were not debarred?

Mr. DONAHUE. Oh, nowhere near it, no, sir.

Senator PRYOR. They were not prevented from submitting another contract bid or anything like that?

Mr. DONAHUE. They were not.

Senator PRYOR. They probably got an increase in their next allocation. That would be an interesting study, what happened at those 26 sites and the contractors in charge. I would bet you anything they got an increase, a reward for their inefficiency, which exacerbates the problem, and they all stay at the trough.

Mr. Cormier, any suggestions, advice, on counsel?

Mr. CORMIER. No, Mr. Chairman.

Senator PRYOR. Yes, Mr. Ungar?

Mr. UNGAR. Mr. Chairman, one other thought came to mind here—just since this is between you and us—you expressed a great deal of concern about what should be done by contract folks versus what should be done by Government employees. One action that could be taken would be perhaps for OMB to come out with some additional guidance in this area.

Now, we have looked at it in the past, and it does get a little bit fuzzy as to the difference between performance and assistance. I know in the past, not looking specifically at EPA, but looking at several agencies, we have said that when the situation is to the point where the contractor is providing essentially all the information, all the analyses, recommendations, and the Government individual is basically left with not much else other than the information, the options, the analyses, that the contractor provides, even though the Government official technically makes the decision, it certainly raises a question as to is it really a governmental function that is being performed by the contractor.

So it would help, I think, if there were some additional guidance on that subject.

Senator PRYOR. I want to thank you, in fact, I want to thank all of the witnesses this morning.

I would especially like to thank Kim Weaver and Rick Goodman of the Subcommittee staff. They have done a tremendous amount of work, with several others on the staff, in looking into one agency. Like I said, this is a biopsy of the Federal Government, and we see some of the problems at EPA that reflect problems throughout the Federal sector.

I want to thank you once again for your testimony and your cooperation.

The meeting is adjourned.

[Whereupon, at 11:47 a.m., the Subcommittee was adjourned.]

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APPENDIX

REPORT OF THE MAJORITY STAFF OF THE FEDERAL SERVICES SUBCOMMITTEE THE ENVIRONMENTAL PROTECTION AGENCY AND ITS USE OF CONSULTANTS

In July of 1988, at the direction of Senator David Pryor, chairman of the Senate Subcommittee on Federal Services, Post Office and Civil Service, the Federal Services subcommittee majority staff began an investigation into the use of consulting services by the Environmental Protection Agency (EPA) in preparation for a hearing. The purpose of this examination is to review the manner in which EPA employs its consultants and the tasks that they perform.

The subcommittee staff interviewed EPA officials, examined contract files, and worked with the Office of Technology Assessment and the General Accounting Office. The staff found that EPA uses consultants to fulfill virtually every aspect of its mission, including drafting policy statements, manuals, writing internal EPA newsletters, responding to Congressional inquiries, and answering the EPA Superfund Hotline. In short, the EPA relies on consultants to perform many of its basic functions.

Congress and the public naturally assume that when EPA issues a policy decision, testifies at a hearing, or meets with a community regarding a toxic waste site, the federal government, officials from the EPA, are making those decisions or taking those actions. In daily EPA activities, however, the line between government and consultant actions are not clearly delineated. In fact, if EPA contracts are to be believed, it

is almost impossible to identify important EPA functions not being performed by consultants.

The subcommittee staff found that consulting contracts have not been properly identified, leading EPA to under-report its consultant spending by $150 million. In addition, this misclassification allows these contracts to avoid the careful review required of consultant contracts by EPA. The staff also determined that many of EPA's consulting firms have extensive involvement with the chemical, petroleum and manufacturing industries. All too often, their private sector clients are firms that EPA is responsible for regulating and overseeing, suggesting the potential for wide spread conflicts of interest.

The staff did not attempt to judge the technical work of the consultants or to comment on the best strategies for addressing the very real environmental problems facing the nation. The staff's task, in working for the federal services and civil service oversight subcommittee, is to identify who is performing the work of the federal government.

For the actual physical cleanup of waste sites and the writing of environmental impact statements, it is not only appropriate but perhaps desirable to have contractors perform that work. In some cases, EPA is required to use contractors, particularly in the Superfund program. However, there is no statute requiring EPA to use consultants to perform its daily management functions.

While the decision regarding when or when not to use consultants is a complex issue, there is federal guidance in the form of the Federal Acquisition Regulations and the Office of Management and Budget circulars, which state that contractors should not perform "inherently governmental activities." Based on its research, the staff is concerned that EPA is indeed using consultants to perform these functions.

BACKGROUND

The Environmental Protection Agency was established in 1970 pursuant to Reorganization Plan Number 3 of 1970. The EPA was created to encourage effective governmental action on behalf of the environment. The 1985-86 U.S. Government Manual reads:

> EPA endeavors to abate and control pollution systematically, by proper integration of a variety of research, monitoring, standard setting and enforcement activities...In all, EPA is designed to serve as the public's advocate for a livable environment. (p. 485-6)

EPA currently employs 15,000 federal workers; 5,400 of which are based in the Washington, D.C. area and 10,000 of which are in the EPA regional offices. A complete breakdown of EPA's employees can be found in Appendix I. These employees include over 600 attorneys and hundreds of people responsible for program management and analysis. As can be seen from the list, EPA appears to have employees capable of performing most, if not all, of the tasks for which consultants have been hired.

EPA's budget authority, as the following data shows, has remained relatively constant, and has even grown slightly in a time of general budget reductions.

FY81 - $3.0 billion	FY86 - $3.4 billion
FY82 - $3.6 billion	FY87 - $4.8 billion
FY83 - $3.6 billion	FY88 - $4.9 billion
FY84 - $4.0 billion	FY89 - $5.0 billion
FY85 - $4.3 billion	

CONSULTANT SPENDING

EPA reported spending $10.2 million on consultants in FY87. When the General Accounting Office (GAO) reviewed EPA's FY87 spending for Senator Pryor, using the definition of consultants prepared by the Office of Management and Budget (OMB), actual EPA consulting expenditures was placed at $167 million to $193 million. (GAO Fact Sheet, June 1988, Government Consultants: Agencies Consulting Services Contract Obligations for Fiscal Year 1987, p. 13 and 19.)

This substantial under-reporting is not unique to EPA; GAO found it to be a government-wide problem. What is particularly troublesome at EPA is that after the EPA Inspector General (IG), as required by Congress, reviewed the FY87 budget submission containing the underreporting, the IG with little independent verification, concurred with the under-reported figure. GAO has informed the EPA IG of the difficulties with its approach. The IG has agreed to alter its hands-off

auditing strategy and attempt to ascertain a more accurate figure for consulting services.

Under-reporting at EPA, as is the case throughout the government, arises in part from the confusion over the definition of consulting services and a lack of commitment by the agencies to ensure accurate identification of contracts. EPA uses a particularly narrow definition of consulting contracts which has the effect of lowering the agency's apparent consulting expenditures. For example, EPA does not always classify management support contracts as consulting, despite the obvious policy nature of these contracts. This confusion not only results in under-reporting but in consulting contracts not receiving adequate review.

The need for strict scrutiny of consulting contracts has been suggested by a series of problems with consulting services that have been uncovered by Congress and GAO during the past 10 years. In light of these problems, EPA has promulgated special review procedures for consulting contracts. Whether this misidentification is intentional or not, the result is the agency spends 10 times more for consulting services than auditors are led to believe.

THE HIDDEN BUREAUCRACY

The staff selected contracts from an EPA computer printout listing contract actions for FY87 and FY88 to enable them to review a representative selection of contracts awarded by the EPA.

The staff's examination of EPA contract files illustrated the extent to which consultants abound at EPA. The review revealed literally hundreds of contract actions that appeared to be wasteful, duplicative, and questionable activities. The work products produced under these contracts do not in any way alleviate the staff's concern. The work products or "deliverables" produced in response to staff inquiries ranged from memos purportedly signed by high-ranking EPA officials to agendas for meetings.

EPA program officials maintain that federal employees are performing all policy work and that consultants are only providing support services. However, the contract assignments and the actual work performed under these contracts suggests otherwise. The contract work assignments reviewed by staff specifically request the consultant to write policy for EPA, an inherently governmental function. If EPA officials are right, the contract work orders describing the expected work product are either poorly written and misleading or completely false.

Case One

ICF, Incorporated.; "sliding" contract: policy/analytic support for Superfund implementation; minimum cost $1,500,000;maximum cost $6,700,000; 43 work assignments[1]

issued by EPA to date.

The consultant personnel working on this project included former high-ranking EPA officials and employees who perform work for private sector clients that are regulated by EPA.

Among the work assignments issued under this contract:

- analyze Congressional interests and legislation that could affect Superfund ($210,000);
- draft documents to reflect EPA's positions on interagency budget issues;
- interview EPA staff and report to headquarters on future uses for EPA's field investigation teams ($60,000);
- review public comments and assist in responding and analyzing issues regarding EPA's oil pollution prevention regulation ($125,000);
- prepare the statement of work and the procurement request rationale for another contract to be let by the EPA ($20,000);
- analyze EPA documents and prepare briefing documents and chart to assist EPA officials brief upper level management ($525,000);
- identify strategies and techniques, both statutory and non-statutory, for increasing compliance with reporting requirements;
- write a document which will be organized and written in a manner that can easily be adapted for inclusion in the preamble for a final rule.

Case Two

Booz Allen and Hamilton; "sliding" contract: general management support contract; minimum cost $30,000, maximum cost $8,675,000; 90 delivery orders issued by EPA to date.

Contractor personnel include former EPA officials and employees working for private sector firms that would be directly affected by EPA regulations.

Work assignments issued under this contract:

- interview staff, review literature, draft an agency-wide standard, respond to intra-agency comments;
- develop a videotape; (the order expired before the videotape was even begun, a modification will be necessary to complete the project; the first delivery order cost the EPA $90,000);
- interview EPA staff to gather information and update a previous study; deliver a draft report, incorporate comments and deliver a final report;
- participate in a national conference and report on the conference to EPA officials;
- analyze EPA training needs; visit all headquarters and regional offices and assess current training programs.

Case Three

ICF, Incorporated; "sliding" contract: policy/analytic support for Superfund implementation; minimum cost $2,900,000; maximum cost $9,134,000; 81 work assignments issued by EPA to date.

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Case Three

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The work assignments include the following:

- develop guidance on the mechanisms used to oversee contractors;
- organize, plan and conduct public hearings;
- respond to Congressional inquiries;
- review a prior ICF study and recommend whether follow-up action should be taken;
- develop a training program for new EPA employees ($38,000);
- assist EPA in implementing a new program; one task is to "convene desk officers for a 'brainstorming session' on the region's role."

Work assignments from other contracts:

- assisting EPA in buying a computer software package ($28,000);
- hundreds of instances in which consultants are sent to interview EPA employees to provide information for EPA management;
- in 1986, EPA paid $10,000 for a consultant to update an EPA bibliography; in 1988, part of a $25,000 contract went to updating the bibliography again;
- EPA paid $45,000 to update an environmental audit; the same firm performed the original study for $160,000;
- after paying a firm $35,000 to research and prepare a summary report, EPA paid the firm an additional $10,000 to prepare an executive summary;

- numerous examples of consultants assisting EPA in the reauthorization of Superfund, despite federal regulatory prohibitions against consultants working on legislation;
- despite an OMB Circular A-120 requirement that consultants be experts in their field, one contract employed consultants with the following qualifications: five consultants had no experience, three had one year, and two had two years.

The type of work that could have been performed in-house ranges from the above examples to consultants preparing legislative and regulatory searches. EPA, a government agency with an extensive filing system and over 600 in-house attorneys, pays thousands of dollars to have consultants peruse agency files and write memos, a typical pattern in these consulting contracts.

CONFLICTS OF INTEREST/REVOLVING DOOR

The majority staff found that many of EPA's consulting firms have extensive and concurrent involvement with private sector clients, suggesting the potential for conflicts of interest. In staff interviews, EPA employees alleged that certain consultant firms actively recruit employees with knowledge of EPA's long-term plans and priorities to aid in their bid proposals.

An example of the potential conflict of interest involved a consultant firm that developed and held an EPA Senior Management forum. The firm was also working for DuPont, other

chemical companies, the Ford Motor Company, a lumber company and other manufacturers with extensive involvement with EPA. There is nothing in the contract files to indicate that EPA took steps to ensure there were no prejudicial conflicts of interest. Obviously, EPA would not permit DuPont or Ford to organize a senior management forum. It is troubling that EPA officials allow consultants with contracts with these companies to perform work without carefully guarding against conflicts.

The firms mentioned above, ICF and Booz Allen and Hamilton, are two of the largest EPA consulting firms. They have long lists of clients in the private sector. Both firms are intimately involved in developing internal EPA documents and procedures. They also advise private sector clients on environmental compliance matters. Again, there is no evidence that EPA has taken any positive steps to ensure that potential conflicts of interest are identified and neutralized.

CONSULTANT PROFILE

The following is an overview of the impact one senior level employee of a consulting firm can have on EPA. An EPA contract file describes one senior level employee of a large consulting firm as "responsible for directing over 20 simultaneous work assignments (projects) worth over two millon dollars in support of Superfund."

In one nine month period, the consultant managed over 22,000 hours of staff time in the performance of these EPA assignments. His projects included:

- development of Superfund claims program and instruct Administrative Law Judges on the correct procedures to use in deciding claims;
- production of a manual on how EPA should manage contractors;
- development of the quality assurance program for the Office of Emergency Response;
- policy and program support to EPA in areas such as program guidance, training materials and contracts management;
- review of the ten regional EPA offices to determine if hundreds of documents were in compliance with EPA guidance.

In terms of the quantity of staff hours under his supervision, the nature and scope of his EPA projects, and the breadth of his involvement throughout the agency, this senior consultant exceeds the authority and impact of most upper-level EPA managers.

In addition to his EPA projects, this consultant also lists projects he directs for "confidential clients." These projects include conducting environmental audits for private industries and EPA required clean-ups of chemical spills for private companies. The result is that this consultant assists EPA in its environmental enforcement and compliance matters and in designing its Superfund claims program. He then turns around to help private industry comply with EPA regulations. Federal conflict of interest restrictions prohibit a federal

employee from working simultaneously for companies that have such conflicts.

In addition to this obvious problem, this consultant, unlike EPA senior-level officials, can hold equity interest in waste management firms or chemical companies, those very industries that are vitally concerned with EPA regulatory and enforcement decisions. The EPA files do not identify the consultant's personal investments. Therefore, neither EPA nor the Congress has any assurance that this consultant is providing objective advice to EPA in all matters and is not himself biased by any personal investments he might have.

CONCLUSIONS

The majority staff recommends that a hearing be held to examine the important issues raised in this review. They include:

Under-reporting

Consultant contracts are not being properly classified. This results in under-reporting of consultant spending as well as contracts not undergoing the close consideration they require.

Wasteful spending

Many of the cases reviewed by the majority staff point to a great deal of wasteful spending. Many work assignments seem to be duplicative of previous efforts or work that EPA employees could perform in-house.

Inherently governmental activities

Drafting regulations, compliance activities, and monitoring contractors are considered functions best performed by federal employees. These workers provide unbiased service in the interest of the public, not any particular firm or private interest.

Conflicts of Interest

When specific firms represent clients that will be affected by the advice they give to EPA, there is an obvious potential for a conflict of interest and an abuse of the public interest. Without full knowledge of the interests of a consultant's other clients, there is no way to ensure that EPA policy is not being unduly influenced by the private sector.

APPENDIX I

EPA SEPTEMBER 1988 EMPLOYMENT BY OCCUPATION & LOCATION
DATA FROM OPM'S CENTRAL PERSONNEL DATA FILE (CPDF)

OCCUPATION CODE & TITLE	TOTAL
**** -	34
SAFETY AND OCCUPATIONAL HEALTH MANAGEMEN	9
SAFETY TECHNICIAN	1
COMMUNITY PLANNING	8
ENVIRONMENTAL PROTECTION SPECIALIST	1,530
ENVIRONMENTAL PROTECTION ASSISTANT	222
SECURITY ADMINISTRATION	6
GENERAL STUDENT TRAINEE	15
SOCIAL SCIENCE	3
ECONOMIST	80
MANPOWER DEVELOPMENT	2
GEOGRAPHY	1
CIVIL RIGHTS ANALYSIS	2
HISTORY	1
PSYCHOLOGY	14
PSYCHOLOGY AID AND TECHNICIAN	3
PERSONNEL MANAGEMENT	89
PERSONNEL CLERICAL AND ASSISTANCE	74
PERSONNEL STAFFING	39
POSITION CLASSIFICATION	18
EMPLOYEE RELATIONS	10
LABOR RELATIONS	3
EMPLOYEE DEVELOPMENT	18
EQUAL EMPLOYMENT OPPORTUNITY	24
MISCELLANEOUS ADMINISTRATION AND PROGRAM	510
MESSENGER	2
MISCELLANEOUS CLERK AND ASSISTANT	509
INFORMATION RECEPTIONIST	1
MAIL AND FILE	22
CORRESPONDENCE CLERK	1
SECRETARY	1,459
CLERK-TYPIST	794
COMPUTER SPECIALIST	278
COMPUTER CLERK AND ASSISTANT	56
PROGRAM MANAGEMENT	171
ADMINISTRATIVE OFFICER	76
SUPPORT SERVICES ADMINISTRATION	25
MANAGEMENT ANALYSIS	150
MANAGEMENT CLERICAL AND ASSISTANCE	30
PROGRAM ANALYSIS	590
LOGISTICS MANAGEMENT	1
EQUIPMENT OPERATOR	15
PRINTING CLERICAL	2
DATA TRANSCRIBER	1
CODING	1
EQUAL OPPORTUNITY COMPLIANCE	9
EQUAL OPPORTUNITY ASSISTANCE	2
COMMUNICATIONS MANAGEMENT	3
GENERAL COMMUNICATIONS	1
COMMUNICATIONS SPECIALIST	5

EPA SEPTEMBER 1988 EMPLOYMENT BY OCCUPATION & LOCATION
DATA FROM OPM'S CENTRAL PERSONNEL DATA FILE (CPDF)

OCCUPATION CODE & TITLE	TOTAL
COMMUNICATIONS CLERICAL	1
GENERAL BIOLOGICAL SCIENCE	695
MICROBIOLOGY	94
BIOLOGICAL TECHNICIAN	118
PHARMACOLOGY	35
ECOLOGY	43
ZOOLOGY	1
PHYSIOLOGY	12
ENTOMOLOGY	15
TOXICOLOGY	82
BOTANY	4
PLANT PATHOLOGY	10
PLANT PHYSIOLOGY	7
HORTICULTURE	1
GENETICS	6
SOIL SCIENCE	14
AGRONOMY	7
FISHERY BIOLOGY	5
WILDLIFE BIOLOGY	8
BIOLOGICAL SCIENCE STUDENT TRAINEE	2
FINANCIAL ADMINISTRATION AND PROGRAM	63
FINANCIAL CLERICAL AND ASSISTANCE	34
FINANCIAL MANAGEMENT	12
ACCOUNTING	149
AUDITING	172
ACCOUNTING TECHNICIAN	61
VOUCHER EXAMINING	23
PAYROLL	4
BUDGET ANALYSIS	69
BUDGET CLERICAL AND ASSISTANCE	24
FINANCIAL MANAGEMENT STUDENT TRAINEE	11
GENERAL HEALTH SCIENCE	98
MEDICAL OFFICER	28
INDUSTRIAL HYGIENE	15
CONSUMER SAFETY	18
VETERINARY MEDICAL SCIENCE	7
GENERAL ENGINEERING	78
ENGINEERING TECHNICIAN	111
SAFETY ENGINEERING	1
FIRE PREVENTION ENGINEERING	1
ARCHITECTURE	11
CONSTRUCTION CONTROL	2
CIVIL ENGINEERING	8
ENVIRONMENTAL ENGINEERING	1,863
MECHANICAL ENGINEERING	82
NUCLEAR ENGINEERING	4
ELECTRICAL ENGINEERING	5
ELECTRONICS ENGINEERING	12
ELECTRONICS TECHNICIAN	22
BIOMEDICAL ENGINEERING	1

EPA SEPTEMBER 1988 EMPLOYMENT BY OCCUPATION & LOCATION
DATA FROM OPM'S CENTRAL PERSONNEL DATA FILE (CPDF)

OCCUPATION CODE & TITLE	TOTAL
MINING ENGINEERING	2
PETROLEUM ENGINEERING	1
AGRICULTURAL ENGINEERING	5
CHEMICAL ENGINEERING	197
INDUSTRIAL ENGINEERING	3
ENGINEERING AND ARCHITECTURE STUDENT TRN	7
LAW CLERK	25
GENERAL ATTORNEY	664
ADMINISTRATIVE LAW JUDGE	7
PARALEGAL SPECIALIST	41
LEGAL CLERK AND TECHNICIAN	34
GENERAL ARTS AND INFORMATION	7
ILLUSTRATING	3
PUBLIC AFFAIRS	96
PHOTOGRAPHY	2
AUDIO-VISUAL PRODUCTION	2
WRITING AND EDITING	33
TECHNICAL WRITING AND EDITING	10
VISUAL INFORMATION	17
EDITORIAL ASSISTANCE	10
GENERAL BUSINESS AND INDUSTRY	105
CONTRACTING	211
INDUSTRIAL PROPERTY MANAGEMENT	7
PURCHASING	47
PROCUREMENT CLERICAL AND ASSISTANCE	23
PUBLIC UTILITIES SPECIALIST	1
FINANCIAL ANALYSIS	14
REALTY	3
PATENT ATTORNEY	1
GENERAL PHYSICAL SCIENCE	1,344
HEALTH PHYSICS	27
PHYSICS	19
PHYSICAL SCIENCE TECHNICIAN	142
GEOPHYSICS	2
HYDROLOGY	76
CHEMISTRY	692
METEOROLOGY	12
GEOLOGY	129
OCEANOGRAPHY	14
CARTOGRAPHIC TECHNICIAN	1
PHYSICAL SCIENCE STUDENT TRAINEE	1
LIBRARIAN	10
LIBRARY TECHNICIAN	3
TECHNICAL INFORMATION SERVICES	49
OPERATIONS RESEARCH	33
MATHEMATICS	5
MATHEMATICAL STATISTICIAN	23
STATISTICIAN	49
STATISTICAL ASSISTANT	4
MATHEMATICS AND STATISTICS STUDENT TRAIN	1

EPA SEPTEMBER 1988 EMPLOYMENT BY OCCUPATION & LOCATION
DATA FROM OPM'S CENTRAL PERSONNEL DATA FILE (CPDF)

OCCUPATION CODE & TITLE	TOTAL
GENERAL FACILITIES AND EQUIPMENT	2
FACILITY MANAGEMENT	3
PRINTING MANAGEMENT	9
EQUIPMENT SPECIALIST	1
GENERAL EDUCATION AND TRAINING	2
EDUCATION AND VOCATIONAL TRAINING	1
TRAINING INSTRUCTION	6
GENERAL INSPECTION, INVESTIGATON, & COMP	12
COMPLIANCE INSPECTION AND SUPPORT	1
GENERAL INVESTIGATING	14
CRIMINAL INVESTIGATING	103
QUALITY ASSURANCE	4
GENERAL SUPPLY	6
SUPPLY PROGRAM MANAGEMENT	6
SUPPLY CLERICAL AND TECHNICIAN	27
INVENTORY MANAGEMENT	6
FREIGHT RATE	1
TRAVEL	1
SHIPMENT CLERICAL AND ASSISTANCE	2
ELECTRICIAN	3
INSTRUMENT MECHANIC	2
LABORING	17
SUMMER AID/STUDENT AID	40
LABORATORY WORKING	2
CUSTODIAL WORKER	7
PLUMBING	2
MISCELLANEOUS PRINTING AND REPRODUCTION	2
BINDERY WORKING	2
FILM ASSEMBLING-STRIPPING	1
OFFSET PHOTOGRAPHY	1
OFFSET PRESS OPERATING	2
MAINTENANCE MECHANIC	8
MISC INDUSTRIAL EQUIPMENT MAINTENANCE	1
AIR CONDITIONING EQUIPMENT MECHANIC	1
INDUSTRIAL EQUIPMENT MECHANIC	1
MOTOR VEHICLE OPERATING	10
MISC TRANSPORTATION/MOBILE EQUIPMT MAINT	12
HEAVY MOBILE EQUIPMENT MECHANIC	1
AUTOMOTIVE MECHANIC	1
WAREHOUSE WORKING	7
AGENCY SUMMARY	15,613

STATEMENT
DR. JOEL S. HIRSCHHORN
SENIOR ASSOCIATE
OFFICE OF TECHNOLOGY ASSESSMENT
BEFORE THE
SUBCOMMITTEE ON FEDERAL SERVICES, POST OFFICE AND CIVIL SERVICE
COMMITTEE ON GOVERNMENTAL AFFAIRS
UNITED STATES SENATE
February 3, 1989

Mr. Chairman, thank you for the opportunity to testify today on OTA's background paper Assessing Contractor Use in Superfund, which was released earlier this week. The background paper is part of our continuing work on Superfund Implementation; we will deliver the final report this fall. OTA has been examining Superfund since the program began in 1981, and, as we watched how Superfund was being implemented and assessed its environmental performance, we found it necessary to understand the role of contractors.

The following is a brief summary of the findings of the background paper:

o The Federal Superfund program is heavily dependent on consultants and contractors; they presently receive 80 percent to 90 percent of Superfund money, about $4 billion over 8 years, with much more planned for the future. As spending on contractors has escalated, funding for EPA staff has remained flat. We believe that at this point the EPA workforce cannot effectively design, monitor, and evaluate contractor work, in large measure because it has too few technical workers with too little experience paid too low salaries and receiving few other rewards. The high spending on contractors and their consequent demand for people tends to pull the more experienced people from EPA into contractor firms.

o The growing dependence on contracting results from congressional and EPA decisions in the early 1980s and annual appropriations which cap internal EPA spending. Initially, Superfund needed contractors in order to quickly respond to a perceived emergency and, indeed, it will always need contractors to perform most of the costliest work of the program -- physical cleanup --as well as other tasks. However, the original assumptions about the extent of the national cleanup problem and the availability of technical expertise have turned out to be unduly optimistic. A multi-decade Superfund program which must address thousands of toxic waste sites requires many more technical experts than we currently have. As a consequence, we don't have enough independent technical expertise in EPA to assure that billions of dollars of public money are being spent effectively, and that EPA staff can effectively oversee responsible party cleanups.

o Some contractor work appears inappropriate, judged by standard government criteria. For example, nearly all the policy and program support work done by contractors seems inconsistent with the Office of Management and Budget's Circular A-76, which requires that contractor work not be "inherently governmental". There is ample evidence that contractors are performing work that Congress and the public expect to be performed by government workers; our background paper gives specific examples. On the other hand, much of the field cleanup work is eminently appropriate for contractors with specialized technical capabilities. The issue raised by so much diverse contractor work in Superfund is:

EPA signs the documents, policy statements and checks, and thus officially makes the decisions. But is the government really in control of Superfund when nearly all important information, analyses, and ideas come from contractors?

o We believe that there is a link between the slow pace and frequently poor environmental performance of Superfund (which many studies have verified) and EPA's heavy dependence on contractors and limited technical ability to effectively control them. The EPA regional workforce is overworked, largely inexperienced. and has little organizational support. As a consequence, oversight of contractors suffers -- not always, but all too often -- and contractor mistakes are not prevented or caught early. Policies, site specific cleanup studies, decisions and field actions are affected. Furthermore, several types of conflict of interest are evident in Superfund. For example, some contractors work simultaneously for EPA and companies which EPA regulates and negotiates with for cleanup settlements. And some contractors which perform the critical site studies that lead directly to cleanup decisions also sell cleanup technologies.

o Everyone wants to get environmental value for the dollars being spent. There is no detailed data to show whether the current extent of contracting is or is not cost-effective. But some indisputable trends suggest that Superfund contracting may be overly expensive. These include: (1) contractor work that is too often poor, requiring work to be repeated; (2) contractor salaries that are much higher than government's; (3) unavoidable competition among contractors for the limited pool of experienced (and even inexperienced) people, driving up salaries; and (4) high overhead costs, because prime contractors are

paid for supervising subcontractors. OTA concludes that it is not uncommon for the government to spend from 100 percent to 500 percent more than a private client would spend to accomplish the same site study or cleanup. While many people advocate more enforcement and settlements with responsible parties in order to shift cleanup spending from Superfund to the private sector, such a strategy implies more demand for independent EPA expertise [and more demand for contractor workers because responsible parties also hire contractors].

FUTURE DIRECTIONS

OTA suggests 5 areas for congressional examination:

1. Reducing the Dependence on Contractors. There are many activities, currently performed by contractors, which could and probably should be performed by EPA. These include analysis of policies and creation of policy options, evaluation of contractor and EPA regional performance, communication with communities, evaluation of new cleanup technologies, and preparation of reports to Congress. Other than a shift in spending from contractors to EPA, serious workforce issues in EPA require attention, including the number, experience level, compensation, morale, and technical support for key technical workers.

2. Improving Government Management of Contractors. More people are needed in EPA's regional offices to exercise tighter management, quality control, and reviews of contractor work done directly for the government and for responsible parties under settlement agreements with EPA. This too means addressing the recruitment and retention of EPA's technical professionals to strengthen the program.

3. Shifting Superfund Spending. To bring demand for talent and services back into better balance, Congress could consider temporarily decreasing, for perhaps 5 years, annual Superfund spending for

contractors by 30 percent to 50 percent (roughly $400 million to $600 million annually). Spending cuts need not lead to poorer environmental protection because, for example, many site studies and cleanups could be financed by responsible parties, site studies could be streamlined and those tasks that are needlessly repeated in every study eliminated, and better contractor oversight could be exercised, which would improve contractor productivity. Simultaneously, spending could be increased for EPA staffing, as discussed above, and for some other critical needs, like R&D for cleanup technologies and technology transfer systems.

4. Rethinking Cleanup Priorities. Public support for the previous option requires confidence that environmental protection will not suffer. Reexamining Superfund's priorities means understanding what kinds of current high cost contractor activities could be postponed without threatening public health and environment, versus those which truly are necessary to address urgent site problems. Two examples: (1) expensive cleanups using impermanent technologies could be postponed and low cost site control measures that would markedly reduce present risks used instead; (2) some cleanups at sites which do not pose significant threats under present conditions could be postponed instead of being justified on the basis of speculative future uses of land or water.

5. Increasing Inspector General Activities. We agree with EPA's IG when he said that "Superfund is particularly sensitive to fraud, waste and abuse." And we support his request for increased funding for substantially more audits and investigations of contractor activities.

TESTIMONY OF
DAVID J. O' CONNOR, DIRECTOR
PROCUREMENT AND CONTRACTS MANAGEMENT DIVISION
ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON FEDERAL SERVICES,
POST OFFICE AND CIVIL SERVICE
OF THE COMMITTEE ON GOVERNMENT AFFAIRS
UNITED STATES SENATE

FEBRUARY 3, 1989

I WOULD LIKE TO BEGIN MY TESTIMONY BY THANKING YOU FOR THIS OPPORTUNITY TO TESTIFY TODAY ON THE ENVIRONMENTAL PROTECTION AGENCY'S MANAGEMENT OF ITS CONSULTANTS AND CONTRACTORS. I BELIEVE THAT THE SUBCOMMITTEE HAS SPECIFIC CONCERNS WITH THE TYPE OF WORK CONTRACTORS ARE PERFORMING, LACK OF COMPETITION, CONFLICTS OF INTEREST, POSSIBLE DUPLICATION OF EFFORT, AND THE QUALITY AND USEFULNESS OF THE WORK PRODUCTS. SINCE THE AGENCY IS A HEAVY USER OF CONTRACTORS, I UNDERSTAND ANY CONCERNS THE SUBCOMMITTEE MAY HAVE ABOUT THE INTEGRITY AND CREDIBILITY OF THE CONTRACT PROCESS AND THE OBJECTIVITY OF THE WORK PRODUCTS. I BELIEVE THAT THE AGENCY HAS DEALT EFFECTIVELY WITH THESE CONCERNS. TODAY I HOPE TO MINIMIZE THEM BY DISCUSSING HOW EPA HAS ADDRESSED EACH OF THEM.

TYPE OF WORK PERFORMED

THE EPA RELIES ON CONTRACTORS IN A VARIETY OF CAPACITIES TO FULFILL ITS MISSION AND STATUTORY OBLIGATIONS. FOR EXAMPLE, EPA USES CONTRACTORS TO PROVIDE TECHNICAL ASSISTANCE TO EPA TO EVALUATE THE REGULATORY IMPACT OF LIMITATIONS ON SMOKE STACK EMISSIONS. THE AGENCY ALSO USES CONTRACTORS TO PROVIDE SUPPORT IN AREAS SUCH AS HUMAN RESOURCE DEVELOPMENT, INFORMATION

MANAGEMENT AND BUILDING SECURITY.

EPA IS CAREFUL TO PERFORM INHERENTLY GOVERNMENTAL FUNCTIONS IN-HOUSE.

COMPETITION

I AM PLEASED TO REPORT THAT EPA'S RECORD OF COMPETITION FOR CONTRACTS IS EXCEPTIONAL. IN FISCAL YEAR 1987, 98% OF ALL CONTRACT DOLLARS ABOVE $25,000, INCLUDING CONSULTANT CONTRACTS, WERE AWARDED COMPETITIVELY. EPA DISCOURAGES SOLE SOURCE CONTRACTUAL ARRANGEMENTS. THE COMPETITION IN CONTRACTING ACT REQUIRES VERY SPECIFIC JUSTIFICATIONS FOR CONTRACTS NOT OPENLY COMPETED AND MAKES IT DIFFICULT TO JUSTIFY THIS TYPE OF ARRANGEMENT. IT MAKES GOOD SENSE, FROM BOTH AN ADMINISTRATIVE AND A CONTRACTS PERSPECTIVE, TO OPENLY COMPETE CONTRACTS.

GENERAL CONFLICT OF INTEREST

EPA IS ALSO SENSITIVE TO POTENTIAL CONFLICT OF INTEREST SITUATIONS IN ALL OF ITS CONTRACTS. EPA'S CONTRACTS CONTAIN SPECIFIC CONDITIONS TO SAFEGUARD AGAINST CONFLICTS OF INTEREST AND REMEDIES TO USE IF A PROBLEM IS IDENTIFIED. BECAUSE THE AGENCY RECOGNIZES THE CONCERN ABOUT CONFLICT OF INTEREST OR THE APPEARANCE OF SUCH, IT HAS INSTITUTED PROVISIONS BEYOND THE STANDARD ONES TO ENSURE PROPER USE OF CONTRACT SUPPORT.
THE STANDARD ONES ARE AS FOLLOWS:

FIRST, BEFORE ENTERING INTO A CONTRACT, THE PROGRAM OFFICE INITIATING THE CONTRACT DETERMINES WHETHER ANY POTENTIAL

CONFLICTS OF INTEREST ARE ANTICIPATED. IF SO, A CONTRACTING OFFICER WILL WORK WITH THE PROGRAM OFFICE TO DRAFT APPROPRIATE LANGUAGE FOR THE CONTRACT TO AVOID OR MITIGATE THE CONFLICT.

SECOND, PROSPECTIVE CONTRACTORS MUST CERTIFY THAT THEY ARE UNAWARE OF ANY POTENTIAL CONFLICT OF INTEREST THAT WOULD DIMINISH THEIR ABILITY TO PERFORM THE WORK. IF THEY ARE UNABLE TO DO SO, THEY MUST PROVIDE RELEVANT INFORMATION ON ANY PAST, PRESENT, OR PLANNED INTERESTS RELATING TO POSSIBLE CONFLICTS.

THIRD, EACH CONTRACTOR MUST ADVISE EPA OF ANY CONFLICT DISCOVERED DURING JOB PERFORMANCE. IF EPA CANNOT AVOID OR MITIGATE THE CONFLICT, THE AGENCY MAY TERMINATE THE CONTRACT. IF THE CONTRACTOR KNEW OF THE CONFLICT BEFORE THE CONTRACT AWARD BUT DID NOT INFORM OR MISLED EPA, THE AGENCY MAY TERMINATE THE CONTRACT FOR DEFAULT OR INITIATE DEBARMENT PROCEEDINGS.

SUPERFUND CONFLICT OF INTEREST

EPA HAS ADDITIONAL CONFLICT OF INTEREST REQUIREMENTS WHICH MUST BE ADHERED TO IN THE SUPERFUND PROGRAM.

FIRST, THE AGENCY WOULD NOT USE A FIRM THAT HAS TIES TO A COMPANY OR INDIVIDUALS POSSIBLY RESPONSIBLE FOR CREATING THE HAZARDOUS WASTE SITE.

SECOND, PRIOR TO BEGINNING ANY SITE WORK, THE CONTRACTOR MUST NOTIFY EPA OF ANY ACTUAL OR POTENTIAL CONFLICT OF INTEREST SURROUNDING THE JOB.

THIRD, A SUBCONTRACTOR MUST PROVIDE EPA WITH ITS CONFLICT OF INTEREST STATUS AND THE STATUS OF ANY PARENT COMPANIES,

AFFILIATES, OR SUBSIDIARIES WHICH MAY BE RESPONSIBLE FOR CREATING THE HAZARDOUS WASTE SITE.

FOURTH, THESE PROVISIONS ALSO APPLY TO INDIVIDUAL CONTRACTOR EMPLOYEES. IF ANY CONFLICT OF INTEREST INVOLVING AN EMPLOYEE IS IDENTIFIED, THE INDIVIDUAL MAY BE DISQUALIFIED FROM PERFORMING THE JOB. THE CONTRACTOR MUST ALSO INFORM EPA IF ANY EMPLOYEE HAS WORKED AT A SUPERFUND SITE IN ANY CAPACITY FOR ANOTHER COMPANY.

FINALLY, A CONTRACTOR MAY NOT COMPETE WITHIN THE ZONE OF ITS CONTRACT FOR SUPERFUND PROJECTS OFFERED BY THE PRIVATE SECTOR WHERE EPA HAS INITIATED AN ENFORCEMENT ACTION, OR WHERE THE CLEAN-UP WORK WAS A RESULT OF SUCH AN ACTION UNLESS THE AGENCY REVIEWS THE PROJECT IN ADVANCE AND DETERMINES THAT NO CONFLICT EXISTS. A CONTRACTOR MAY ALSO NOT COMPETE FOR CONTRACTS OFFERED BY STATES THAT RESULTED FROM SUPERFUND COOPERATIVE AGREEMENTS WITHOUT AGENCY APPROVAL. CONTRACTORS FREQUENTLY REQUEST A WAIVER TO ALLOW THEM TO PERFORM THIS ADDITIONAL WORK. EPA HAS GRANTED 250 WAIVERS IN THE REMEDIAL PROGRAM OVER THE LAST TWO YEARS.

CONTRACT MANAGEMENT

WITH A LARGE CONTRACTOR WORKFORCE, IT IS IMPERATIVE THAT EPA HAVE AN INSTITUTIONALIZED AND SOUND APPROACH TO CONTRACT MANAGEMENT. EPA HAS INCREASINGLY PLACED MORE EMPHASIS ON CONTRACT MANAGEMENT WHICH IS THE KEY TO ENSURING A GOOD WORK PRODUCT AND PROPER EXPENDITURE OF GOVERNMENT FUNDS. THE AGENCY

HAS ACCOMPLISHED THIS BY:

- o INCREASING THE NUMBER OF CONTRACT PERSONNEL TO PERFORM CONTRACT ADMINISTRATION;
- o ESTABLISHING SEPARATE SECTIONS WITHIN THE PROCUREMENT DIVISION DEVOTED SPECIFICALLY TO CONTRACT ADMINISTRATION; AND
- o PROVIDING ADDITIONAL TRAINING IN CONTRACT MONITORING FOR RESPONSIBLE PROGRAM OFFICE PERSONNEL.

WITHIN THE TRAINING ARENA, EPA IS DEVELOPING MORE SPECIALIZED AND USEFUL TRAINING FOR PROGRAM PERSONNEL. FOR EXAMPLE, EFFORTS ARE UNDERWAY TO DEVELOP A COURSE EXCLUSIVELY FOR REMEDIAL PROJECT MANAGERS IN THE SUPERFUND PROGRAM. EPA ALSO PLANS TO DEVELOP SIMILAR COURSES FOR OTHER PERSONNEL WHO OVERSEE SUPERFUND WORK, SUCH AS ON-SCENE COORDINATORS.

FINALLY, I WILL ADDRESS A REMAINING SUBCOMMITTEE CONCERN -- HOW EPA ASSURES IN-HOUSE EXPERTISE CAPABLE OF MONITORING ITS CONTRACTORS AND ITS CONSULTANTS.

WHEN A SENIOR PROGRAM OFFICIAL DESIGNATES AN EMPLOYEE AS A PROJECT OFFICER FOR AN INDIVIDUAL CONTRACT, THAT EMPLOYEE MUST HAVE A RANGE OF SKILLS AND EXPERIENCE SIMILAR TO THOSE REQUIRED OF THE CONTRACTOR BEING MONITORED. THIS MATCHING OF SKILLS ENSURES THAT THE PROJECT OFFICER CAN EFFECTIVELY MONITOR THE CONTRACT.

FURTHERMORE, THE HEADQUARTERS SUPERFUND OFFICE HAS ALSO CENTRALIZED ITS CONTROL OVER ITS MANAGEMENT AND ADVISORY AND ASSISTANCE CONTRACTS. IT DEVELOPED A TRAINING COURSE

EXCLUSIVELY FOR PROGRAM PERSONNEL MANAGING THESE CONTRACTS. THIS COURSE IS DESIGNED TO ENSURE THAT TASK MANAGERS HAVE THE TECHNICAL AS WELL AS THE MANAGEMENT EXPERTISE TO EFFECTIVELY MONITOR CONTRACTOR PERFORMANCE. THE COURSE EMPHASIZES PROPER DIRECTION AND MONITORING TECHNIQUES, CAREFUL RECORD-KEEPING, AND EARLY WARNING SIGNS OF PROBLEMS. THE EMPLOYEES RESPONSIBLE FOR THESE CONTRACTS MEET MONTHLY WITH THE CONTRACTORS TO DISCUSS ANY CURRENT OR POTENTIAL PROBLEMS INCLUDING WORK QUALITY,TIMELINESS, AND PERFORMANCE WITHIN BUDGET.

THE HEADQUARTERS OFFICE OF ADMINISTRATION AND RESOURCES MANAGEMENT ALSO CONTROLS ITS MANAGEMENT AND CONSULTING SERVICE CONTRACTS FROM ONE CENTRAL LOCATION. THIS ARRANGEMENT ENSURES EPA STAFF REVIEW OF THE NECESSITY OF THE SERVICES, MONITORING OF THE COSTS, AND AVOIDANCE OF DUPLICATION OF EFFORT.

CONSULTANTS

EPA DOES EMPLOY CONSULTANTS WHO WORK DIRECTLY FOR THE AGENCY UNDER PERSONNEL APPOINTMENTS. EPA FORMALLY REVIEWS THEIR WORK ON A QUARTERLY BASIS. TOP LEVEL CERTIFICATION, EITHER BY THE RESPONSIBLE ASSISTANT OR REGIONAL ADMINISTRATOR, IS REQUIRED TO ENSURE THAT THE DUTIES OUTLINED IN THE PERSONNEL APPOINTMENT AGREEMENT STILL REFLECT THE ACTUAL WORK BEING PERFORMED AND THAT THE WORK MEETS EPA'S EXPECTATIONS.

THIS CONCLUDES MY FORMAL STATEMENT. I WILL BE HAPPY TO ANSWER ANY QUESTIONS YOU MAY HAVE REGARDING THE ENVIRONMENTAL PROTECTION AGENCY'S USE OF CONTRACTORS.

STATEMENT OF HENRY L. LONGEST II
DIRECTOR
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON FEDERAL SERVICES, POST OFFICE AND CIVIL SERVICE
OF THE
GOVERNMENT AFFAIRS COMMITTEE

FEBRUARY 3, 1989

Good morning, Mr. Chairman and members of the Subcommittee. It is a pleasure to be here today to discuss the management of contractor resources in the Office of Emergency and Remedial Response (OERR).

I am pleased to report to you that Superfund has achieved a great deal in the management of our many and diverse contracts. In the last several years, we have instituted many management improvements and developed an infrastructure to make our program more effective and efficient, and contracts management has been an area which has been given particular attention.

When I first arrived in the Superfund program in 1986, we found ourselves in a period of lower activity due to the hiatus between CERCLA and SARA Reauthorization. I decided to take advantage of this "down time" and instituted a number of management initiatives to improve the flow and accountability of Superfund work. As a manager, my first priority was to assess the reliability and workability of Superfund's infrastructure and systems. In particular, since I am tasked with managing the resources allotted to me, whether those

resources are people or dollars, I was concerned with the large number of Headquarters contractors to be managed, relative to the number of work assignment managers.

A review of the manner in which Superfund managed its contractor resources was one of my first concerns. Accordingly, I directed an in-depth examination of OERR practices in the use of Headquarters policy, management, and technical support contractors. Incidentally, I would like to point out that these headquarters support contracts cost us about $10 million per year, which is one percent of our total FY 89 extramural budget. One of the purposes of this study was to ascertain if there was any validity to the repeated charges that contractors, rather than Superfund managers, were creating Superfund policy. The study, which reviewed contract management practices and the utility of contractor deliverables, concluded that there were no major or systematic problems in the way we managed our contracts and that clearly, contractors were not producing Superfund policy. They were producing deliverables necessary to support the EPA work group process and appropriate Agency decision making. However, the study did conclude that several management improvements could be made to make the internal management of our contracts more streamlined and accountable.

The study resulted in the implementation of three specific contracts management efforts for OERR Headquarters policy, management, and technical support contracts: 1) A Task Manager Training Course for all OERR work assignment managers,

dealing with all phases of contractor direction from project startup, through work plan development, project review and feedback, to product evaluation, and ethics, 2) The OERR Contracts Operating Plan which outlines all contract expenditures against OERR work plans to assure that contracts consistently support Office priorities, and 3) OERR Performance Evaluation of Support Contracts, in which each task manager performs a quarterly evaluation of contractor performance against technical, management and cost criteria. Furthermore, we instituted a computerized Contracts Management Information System for all OERR contracts that maintains current information on types, project officers, periods of performance, dollar values and total obligations and outlays. We are currently incorporating procedures to project "burn" (or contract utilization) rates. We also developed a Remedial Project Manager (RPM) Training Course to help our Regional work assignment managers better direct their contractor resources and obtain high quality products at reasonable cost. Both of these OERR contractor management courses are mandatory for all staff managing contracts and result in task manager certification. Over 60 percent of Headquarters staff has been trained, and the remainder will complete training this Spring. Training of Regional personnel has commenced with a pilot program and will be completed this year.

Several additional initiatives have been undertaken to improve the management of our response contracts. Both the

Removal and Remedial Programs are implementing contract strategies that focus on smaller, Region-specific contract mechanisms. The Remedial Program is awarding Alternative Remedial Contracts Strategy contracts (ARCS) and the Removal Program is awarding Regional Emergency Response Cleanup Services contracts (also referred to as Mini-ERCS). The primary goals of these strategies are 1) to increase competition within a geographical area by awarding multiple contracts, and 2) provide a stronger management role for the Regions by having the contracts administered and managed within the Regional Offices. In addition, the Removal Program has awarded four site-specific cleanup contracts and four contaminant-specific contracts for cleanup of dioxin-contaminated soils.

Further, we have instituted several Removal Program initiatives to improve management and structure of the nation-wide ERCS contracts including 1) Regional Contract Management Reviews of these contracts, 2) an Internal Control Review, (in accordance with the Federal Managers' Financial Integrity Act) to assess the adequacy of Headquarters assistance/guidance to the Regions, 3) a PC-based software program to assist On-Scene Coordinators in performing contract cost estimation and management functions, and 4) restructuring of the ERCS contracts to be primarily cost reimbursed instead of time and materials contracts.

Additionally, OERR takes special measures to assure that all response contractors are fully apprised of Superfund policy

and guidance by meeting semi-annually to discuss all new policy developments. These meetings and discussions assure consistent interpretation and timely application of Superfund directives and policies in any of the tasks our contractors perform for us.

Finally, I established the Contract Operations Review and Assessment Staff (CORAS) in my office, as a special unit to identify and resolve areas of vulnerability in the implementation of Superfund contracts. This staff performs internal contract coordination within OERR and interfaces with the EPA Procurement and Contract Management Division. CORAS activities have included an ARCS readiness assessment to identify contract startup problems and suggested resolutions, a Regional Project Manager field guide for preparing contract paperwork, and an assessment of financial voucher approval roles and responsibilities. In particular, we have instituted a bi-monthly CORAS bulletin to apprise all OERR contracts management staff of recent improvements in contracts management mechanisms. This is a routine, user friendly, information transfer tool that assures maximum staff accessibility to the finer points of good contracts management practices.

I am aware that OTA has issued a recent report raising questions about the level of Superfund contract use and the effectiveness of that effort. The Administrator-designate William K. Reilly has already indicated in testimony this week the he will initiate a review of the program and provide his views within 90 days.

In closing, I would like to point out that in the last two years Superfund has built a strong and broad-based management foundation. Our management systems and infrastructure are solidly in place to deliver consistent, high quality products and documents, defensible cleanup decisions, and dependable information to our constituents, the American public. Our contracts management procedures and systems are a primary element in that management foundation. Our management control systems will show that we are making the best, most effective use of the public's tax dollars, particularly in the area of contracts management. My staff and I are committed to the maintenance and betterment of these management systems in order to achieve our goal of a Superfund program that has earned the public's confidence in our dedication and ability to solve the nation's hazardous waste problems.

95-519 O - 89 - 4

United States General Accounting Office

GAO Testimony

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The Environmental Protection Agency's Use of Consultants

Statement of
Bernard L. Ungar
Director, Federal Human Resource Management Issues
General Government Division

Before the
Subcommittee on Federal Services,
Post Office, and Civil Service
Committee on Governmental Affairs
United States Senate

GAO/T-GGD-89-5

95-519 120

GAO Form 100 (12/87)

THE ENVIRONMENTAL PROTECTION AGENCY'S USE OF CONSULTANTS

SUMMARY OF STATEMENT BY BERNARD L. UNGAR DIRECTOR, FEDERAL HUMAN RESOURCE MANAGEMENT ISSUES

GAO has reported in the past on many aspects of the Environmental Protection Agency's (EPA) contracting, including its use of consulting services. We have identified the underreporting of consulting services contracts and contract management weaknesses, which can result in increased costs to the government, and concluded that management improvements were needed. EPA has taken steps to improve its management; however, its focus continues to be on getting the work completed under a contract without placing enough emphasis on sound contract management and cost considerations.

EPA depends heavily on contractors to accomplish its mission. In fiscal year 1989, EPA's estimated contract obligations will be about one-third of its total budget, excluding construction grants. According to EPA's budget documents, the Superfund is the largest single program that uses contractors, in general, and the largest user of consulting services contracts.

Although we could not determine the full extent of EPA's use of consulting services contracts, our work showed that EPA significantly underreported its use of these services. For fiscal year 1987, EPA identified a total of about $16 million for consulting services contracts, but we estimated the amount to be at least $168 million based on criteria established by the President's Cabinet Council on Management and Administration. The underreporting stems largely from ambiguity in the consulting services definition and varying and narrow interpretations of the definition by EPA personnel. Reporting systems limitations also contribute to underreporting.

EPA's Inspector General has submitted statutorily required evaluations of the agency's progress in establishing effective management controls over consulting services and for improving the accuracy and completeness of reported information. However, we found that the Inspector General reviewed only those contracts identified as consulting services by contracting officers and, thus, could not determine the extent to which other EPA contracts should have been, but were not, reported as being for consulting services. Inspector General officials told us they have adopted an approach to identify the underreporting of consulting services contracts.

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss the Environmental Protection Agency's (EPA) use of consultants. You asked us to address our past work on EPA's use of contracting and the extent that it uses consultants to do its work.

EPA depends heavily upon contractor support to accomplish its mission. This dependence has increased over the last 8 years from obligations of $362 million in fiscal year 1981 to an estimated $1.2 billion in fiscal year 1989. EPA obligated $999 million for contracting work in fiscal year 1987. With its current budget at about $3.4 billion, excluding construction grants of $1.95 billion, EPA's estimated fiscal year 1989 contract obligations account for about one-third of EPA's total budget.

The Superfund is the largest single program that uses contractors, with obligations estimated at about $655 million this fiscal year. Since fiscal year 1982, EPA's appropriations acts for the Superfund program have substantially limited the funds available for administrative expenses. For example, in fiscal year 1989 Congress appropriated about $1.4 billion for the Superfund program and placed a ceiling of $190 million, or 13 percent, on the amount EPA could spend on administrative expenses. Thus, EPA has to rely on external organizations,

primarily contractors, to carry out the Superfund program. Moreover, EPA budget documents also show that almost 52 percent of fiscal year 1989 estimated obligations of about $16.0 million for consulting services will be spent on the Superfund.

Over the last 8 years, we have reported on numerous facets of EPA contracting. (See app. I.) We have addressed specific contracting issues at the request of several congressional committees. In many of these reviews we identified contract management weaknesses which can result in increased costs to the government and concluded that management improvements were needed. Although EPA has taken steps to improve its contract management, its focus continues to be on getting the work completed under a contract without placing enough emphasis on sound contract management and cost considerations.

Our most recent report[1] on EPA contracting focused on the Superfund. We found that EPA was not adequately controlling contractor costs for remedial studies under the Superfund program. We identified several weaknesses which may be increasing EPA's costs for remedial studies, and we recommended that the Administrator, EPA, affirm his commitment to cost control on remedial studies' contracts and take specific actions to correct the identified weaknesses. These studies are

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[1]Superfund Contracts: EPA Needs to Control Contractor Costs (GAO/RCED-88-182, July 29, 1988).

undertaken to determine the type and extent of contamination at Superfund sites and identify and evaluate alternative cleanup strategies. Consultants are being used in remedial studies to do activities, such as developing designs for cost analysis research and models for remedial project cost estimation.

Our last report that specifically focused on EPA's use of consulting services was issued in March 1982.[2] One problem we identified was EPA's use of a limited definition of consulting services, resulting in an understatement of its use of consultants. Other problems included the potential existence of organizational conflict of interest situations that could have diminished the contractors' ability to give impartial, objective advice, lack of receipt or questionable value of work products in some cases, and frequent award of sole source contracts.

Our testimony last June[3] before this Subcommittee showed that although we could not determine the extent the federal government uses consulting services, information on the use and cost of consulting services was still being significantly understated. This was due to the varying agency interpretation of what constitutes consulting services and reporting systems limitations. We said that the government's use of consultants

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[2]EPA's Use of Management Support Services (CED-82-36, Mar. 9, 1982).

[3]Federal Government's Use of Consulting Services (GAO/T-GGD-88-39, June 13, 1988).

has been vulnerable to abuse and improprieties due largely to underreporting on the use of consultants and limited monitoring by Inspectors General of agency compliance with rules and requirements concerning the use of consultants.

CONSULTANT INFORMATION IS UNDERSTATED

According to EPA budget documents, actual consulting services contract obligations totaled about $16 million[4] in fiscal year 1987 and are estimated to be $6.9 and $15.9 million respectively in fiscal years 1988 and 1989. However, as we reported[5] in June 1988, on the basis of criteria established by the President's Cabinet Council on Management and Administration, we estimated EPA's fiscal year 1987 consulting services contract obligations to be at least $168 million. Appendix II shows EPA's obligations for contracting and consulting services for fiscal year 1987, excluding consultant appointments.

According to EPA, costs for consultant appointments were $2.4 million for fiscal year 1987 and $2.3 million for fiscal year

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[4]The Federal Procurement Data System (FPDS) shows that EPA reported consulting services contract obligations of $10.2 million for fiscal year 1987. We do not know the reason for the difference.

[5]Government Consultants: Agencies' Consulting Services Contract Obligations for Fiscal Year 1987 (GAO-GGD-88-99FS, June 23, 1988).

1988. Additionally, the Office of Personnel Management (OPM) reported 456 and 471 appointments in effect at the end of fiscal years 1987 and 1988, respectively. EPA ranked second highest among all agencies in the number of consultant appointments. Although we have no indication that costs for EPA's consultant appointments are understated, the number of appointments may be less than the total number made during the year due to a reporting system limitation discussed later.

REASONS FOR UNDERSTATING CONSULTING SERVICES

Our work showed that governmentwide information on the use and cost of consulting services was understated because of (1) an ambiguous definition and varying and narrow agency interpretations of what constitutes consulting services and (2) reporting systems limitations.

Definitional Problems

One of the key reasons for the understatement of consulting services contracts is the ambiguity of the Office of Management and Budget's (OMB) definition and varying and narrow interpretations of the definition by EPA personnel. OMB's 1980 Circular No. A-120 defined consulting services as those services of a purely advisory nature relating to the governmental

functions of agency administration and management and program management. Our review of 10 of EPA's contracts awarded in fiscal year 1987, as discussed below, demonstrates the definitional problems.

In fiscal year 1987 EPA awarded 425 initial contracts with about one-third being equally awarded by EPA's three contracting offices located in Washington, D.C. headquarters, Research Triangle Park, North Carolina, and Cincinnati, Ohio. Two of these contracts were classified by EPA as consulting services contracts. We reviewed the two contracts and found that one was properly classified as consulting services while the other was not. The one properly classified was to obtain management and technical services to support EPA in planning, managing, implementing, and evaluating its Superfund policies and program. However, the second contract was for the purchase of operator services for photocopy and binding equipment, clearly not a consulting services contract. EPA contracting officials agreed and said it was miscoded.

We judgmentally selected eight other contracts awarded at EPA headquarters that were not classified as consulting services contracts using the contracts' short project title. Contracts similar to those that we selected for review at headquarters had also been awarded at the other two locations.

Comparing the statements of work of these eight contracts against the definition of consulting services in the April 1980 OMB Circular No. A-120, we believe six of these eight contracts should have been classified as consulting services. These six contracts had a maximum potential value of $52.5 million over the life of the contracts. We used the 1980 OMB definition because it was the criteria in effect for determining consulting services at the time these contracts were being prepared for approval. The April 1980 OMB Circular No. A-120 defines consulting services as those relating to the government functions of agency administration and management and agency program management.

The following examples are excerpts from the statements of work for two of the six contracts we believe EPA should have classified as consulting services.

-- To obtain the management and technical services to support EPA in planning, management, implementation, and evaluation of the Superfund program. This contract's statement of work is similar to that in the contract noted earlier that EPA classified as consulting services.

-- To conduct efficiency and financial evaluations or reviews of information collection activities; to develop innovative approaches to evaluation planning for regulatory programs and regulation development processes relating to information

collection; to develop methodologies for analysis and evaluation regarding the EPA's Office of Information Resources Management; to establish information valuation and use criteria; to develop techniques for reducing cost to the government of implementing information requirements; and to review applications for OMB clearance.

We discussed the classifications of five of the eight contracts which we judgmentally selected with five contracting officers who were available to obtain their basis for determining why these contracts were not consulting services. The contracting officers for the remaining three contracts were either no longer at the agency or not working in EPA's contracting office. Two of the five contracting officers still believe their two contracts were not for consulting services; one agreed that the contract was consulting services, and the other two said their two contracts were "borderline" and could have gone either way. The one contracting officer who agreed with us said that her contract was consulting services and provided us with several documents from the contract file supporting the consulting services determination. She was surprised to learn that this contract was not classified in EPA's computer data base as a consulting services contract. We do not know why the contract was not coded as consulting services.

One of the reasons cited by an EPA contracting official for not classifying contracts as consulting services was that they were not intended to affect policy decisionmaking. As previously stated, the April 1980 OMB Circular No. A-120 definition of consulting services, however, covers those contracts relating to the government functions of agency administration and management and agency program management. In six of the eight contracts we reviewed, the statements of work provided for evaluations or studies that were intended to render advice or an evaluation of agency management or program management to help EPA perform its mission. It is the relationship of the work to be done to agency management, and particularly program management, that may have been overlooked or narrowly interpreted by EPA contracting officers. Such a narrow interpretation had the effect of underreporting consulting services in the contracts we reviewed.

EPA's decision not to code the remaining two contracts as consulting services contracts appears consistent with OMB's guidance in effect at the time the contracts were awarded. OMB's 1980 Circular No. A-120 exempted from its consulting services definition contracts awarded under OMB Circular No. A-76, which establishes federal policy for contracting out commercial activities.

These remaining two contracts were for support services covered under Circular No. A-76 and were thus not to be considered as consulting services under Circular No. A-120. One of the contracts was a support service contract involving inspections and studies to provide safe and healthful working conditions under the direction of EPA's Occupational Health and Safety staff. The other contract, involving technical services for the Superfund program, was for architectural and engineering services which also falls under OMB Circular No. A-76. The statement of work requires engineering feasibility studies involving the detailed evaluation of alternatives using economic, environmental, and engineering factors resulting in the contractor recommending a cost-effective remedial action and a detailed remedial action plan for the approved remedy.

OMB's January 1988 revision of Circular No. A-120 modified the exemption of contracts awarded under its Circular No. A-76. The revision states that activities that are reviewed in accordance with the A-76 process are exempt from the provisions of OMB Circular No. A-120 except when the functions performed by the contractor meet the definition of advisory and assistance, or consulting, services. In these situations they are to be reported to FPDS as consulting services contracts.

The revision also states, however, that architectural and engineering services of construction and construction management

services and engineering studies related to specific physical or performance characteristics of existing or proposed systems are excluded from the consultant definition. Because of the ambiguity of the definition and whether the exclusions would apply in these cases, it is unclear to us whether these two contracts would now be considered consulting services if they had been awarded after OMB's January 1988 revision. For example, we cannot tell from the statement of work whether the architectural and engineering services contract was for construction. If it was not, it appears that the contract would be considered to be for consulting services under OMB's January 1988 Circular No. A-120.

OMB is currently restudying the definition of consulting services. OMB's January 1988 Circular No. A-120 broadened the definition of consulting services to advisory and assistance services as recommended by the President's Cabinet Council on Management and Administration in 1984. It did not, however, fully resolve the definitional problems. EPA contracting officials, as well as officials of other agencies, believe this revised definition is too broad in scope. They have suggested that OMB again revise its definition of consulting services, and OMB is analyzing their comments and concerns. We believe that more accurate reporting of consulting services contracts is unlikely until the definitional problems and reporting systems limitations discussed below are resolved.

Reporting Systems Limitations

Three reporting systems limitations contribute to underreporting of consulting services. The first two involve contracts, while the third involves personnel appointments.

First, only contracts over $25,000 are required to be individually reported by procurement category and entered into the FPDS. Actions of $25,000 and under are not required to be reported by procurement category, but can instead be reported on a consolidated agency statement and entered into the system. This makes it impossible to identify consulting services within FPDS for any contract actions of $25,000 or less that are not individually reported. According to the FPDS Standard Report for fiscal year 1987, contract actions for all types of procurements for $25,000 and under in fiscal year 1987 accounted for 98 percent of the total reported actions and 10 percent of the costs.

Second, understating also occurs if the consulting services do not form the predominant, or principal, part of the contract costs. According to OMB officials and correspondence, if the contract is primarily for products or services other than consulting services, contracting officers are not to report it as a consulting services contract. Contracting officers are

required to check the "yes" block on the FPDS Individual Contract Action Report only if the contract is solely for consulting services or if consulting services constitute the predominant part of the contract. For example, if an agency were to enter into a $450,000 contract for the purchase of $400,000 in equipment and $50,000 for advisory services on the equipment's use, the cost of the advisory services would not be reported as being for consulting services.

Third, agencies report to OPM the number of consultant appointments made throughout a reporting period. However, according to an OPM official, OPM reports information on individuals with consultant appointments only as of the last day of the period and does not report on those made and terminated during the reporting period. Thus, the CPDF report can understate the number of consultant appointments made during a quarter and for a year's period. For example, if an agency had appointed a consultant on July 1, 1987, and terminated the appointment on August 30, 1987, this appointment would not be included in the CPDF report for the period ending September 30, 1987. However, this does not necessarily mean that consultant cost data reported by OPM is also understated because the cost of appointments should be included in the agency's payroll system and, thereby, in the cost data reported by OPM.

EPA INSPECTOR GENERAL'S
REQUIRED EVALUATION

Each Inspector General, comparable agency official, or agency head or designee is required by 31 U.S.C. § 1114, enacted in 1982, to submit to Congress each year, as part of the agency's budget justification, an evaluation of consulting services. The evaluation is to consider the agency's progress in establishing effective management controls and improving the accuracy and completeness of the information provided to the FPDS on contracts for consulting services.

In June 1988, we told your Subcommittee we had not addressed the adequacy of annual evaluations made by the Inspectors General. However, information we had obtained from statutory Inspectors General at 19 agencies indicated that for 9 of the 19 agencies the evaluations were being done as required. At 10 agencies evaluations were not being done for various reasons.

EPA was one of the nine agencies doing the required evaluations. To date, the Inspector General has completed five evaluations which were submitted with each of EPA's budgets for fiscal years 1985 through 1989. In its most recent evaluation, the Inspector General determined that EPA had controls to guide the procurement of consulting services contracts; however, improvements were needed to improve the timely identification and reporting of

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consulting services contracts to FPDS. The Inspector General's evaluation to be submitted with the fiscal year 1990 budget justification has not yet been submitted.

Thus far, the Inspector General's reports have focused on a minimal number of contracts identified as consulting services by EPA contracting officers to assess whether established controls over consulting services contracts were working. In our opinion, these evaluations did not fully determine the adequacy of EPA's controls regarding the reporting of consulting services. Rather than sample what EPA considered consulting services, we believe the Inspector General should have sampled from the entire universe of contracts to determine whether underreporting of consulting services existed. Inspector General officials responsible for performing the evaluation agreed.

According to Inspector General officials responsible for doing the annual evaluation, the evaluation's scope for the 1990 budget justification has been increased to cover contracts not identified as being consulting services to determine whether they were properly classified. These officials told us the reason for the expanded scope was the recent increased interest in consulting services contracts by the Congress and the President's Council on Integrity and Efficiency (PCIE).

EPA's Inspector General is not participating with other agency Inspectors General in a PCIE effort to comprehensively audit various aspects of procuring advisory and assistance services. Officials from the EPA's Inspector General's office said that their resources were insufficient to allow them to participate. The Inspector General has no additional work planned for the current or next fiscal year regarding consulting services beyond that required by law.

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This concludes my statement. We would be pleased to answer questions.

GAO REPORTS ON EPA CONTRACTING
SINCE 1980

Superfund Contracts: EPA Needs to Control Contractor Costs (GAO/RCED-88-182, July 29, 1988).

Superfund: Overview of EPA's Contract Laboratory Program (GAO/RCED-88-109FS, March 30, 1988).

Superfund: Cost Growth on Remedial Construction Activities (GAO/RCED-88-69, Feb. 24, 1988).

Air Pollution: EPA's Effort to Develop a New Model for Regulating Utility Emissions (GAO/RCED-88-57, Jan. 22, 1988).

Internal Controls: EPA Needs to Improve Controls Over Change Orders and Claims (GAO/RCED-88-16, Nov. 17, 1987).

Contracts: Status of EPA's Contract Management Improvement Program (GAO/RCED-87-68FS, Jan. 12, 1987).

The Environmental Protection Agency Should Better Manage Its Use of Contractors (GAO/RCED-85-12, Jan. 4, 1985).

Potential Impacts of Reducing the Environmental Protection Agency's Budget (GAO/RCED-83-75, Dec. 30, 1982).

EPA's Use of Management Support Services (CED-82-36, Mar. 9, 1982).

Agencies Should Disclose Consultants' Roles in Preparing Congressionally Mandated Reports (FPCD-80-76, Aug. 19, 1980).

EPA'S ACTUAL OBLIGATIONS FOR CONTRACTING AND CONSULTING SERVICES FISCAL YEAR 1987

	Actual Obligations (Thousands)
Total EPA Budget[a]	$ 2,621,966
Total EPA Contracts	999,000
Consulting Services Reported to Congress	15,961
Consulting Services Reported to FPDS	10,231
Consulting Services Using Cabinet Council's 4 Categories[b]	167,994

[a]Does not include $2,168,797 for construction grants.
[b]In 1984, the President's Cabinet Council on Management and Administration identified four categories of FPDS product service codes that it believed were exclusively for consulting services. These obligations are for all contracts EPA coded under these four categories.

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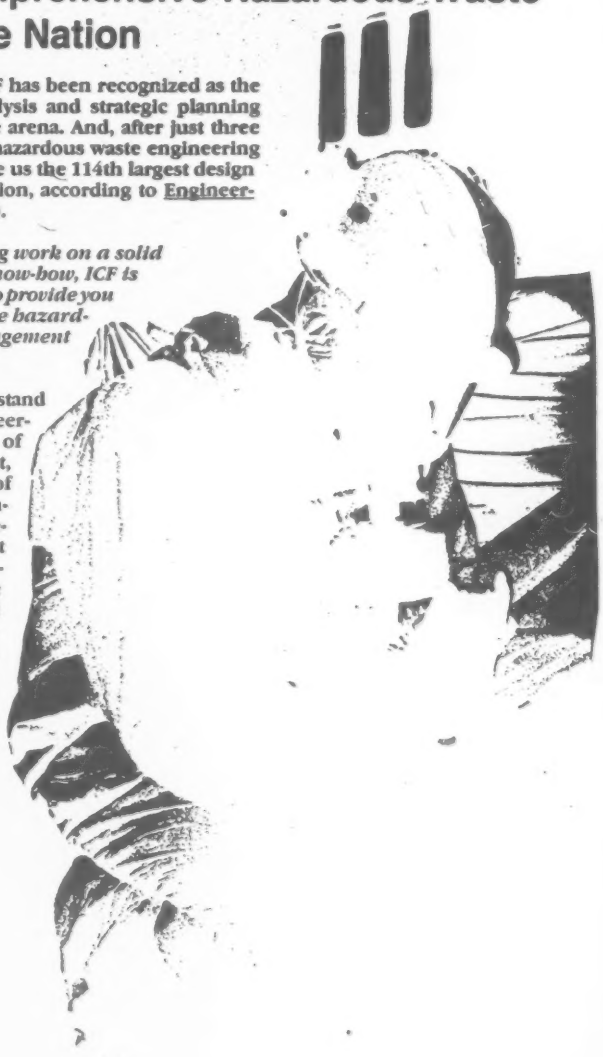

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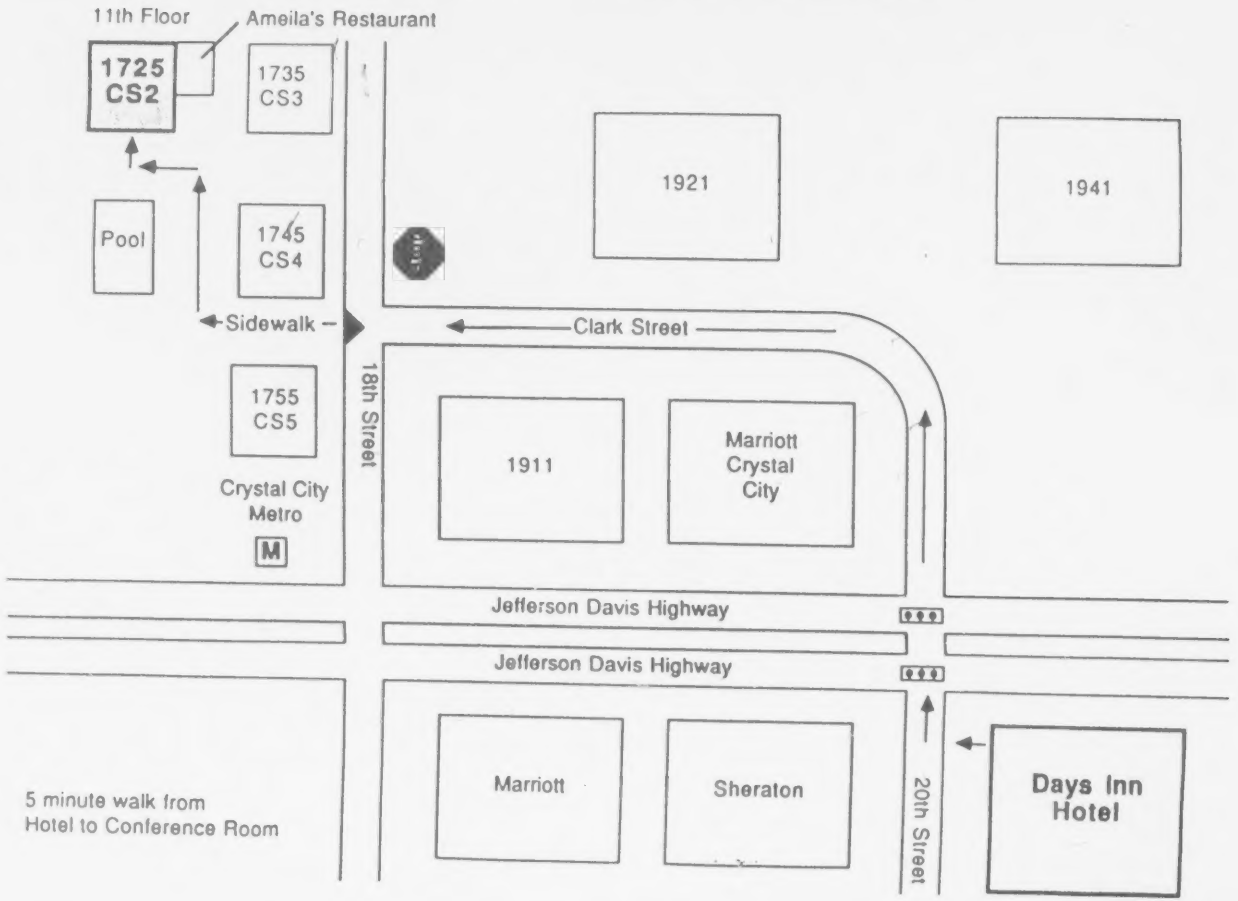
Walking Map from Hotel to Conference Room



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United States Senate
COMMITTEE ON
GOVERNMENTAL AFFAIRS
WASHINGTON, DC 20510-6250

February 15, 1989

Mr. David O'Connor
Director
Procurement and Contracts Management Division
Environmental Protection Agency
Fairchild Building, 8th Floor
499 S. Capitol, S.W.
Washington, D.C. 20460

Dear Mr. O'Connor:

I am writing to follow-up on the February 3rd hearing with some related questions. They are as follows:

* On the question I asked you at the hearing in regard to the Environmental Protection Agency's use of outside legal services: The specific information I am interested in is any FY87 contracts between EPA and law firms for the purpose of securing legal services. If there are any such contracts (please note I am not asking for purchase orders) then I would like the name of the firm(s) and the dollars amount of the contract.

* On the issue of using contractors in general:

1) What rules govern the types of work that can be contracted out?

2) What is the basis in law for relying on contractors to do basic policy work? Are the policy and management support contracts classified under A-120 or A-76?

3) What rules govern the use of contractors for enforcement-related work? What kinds of enforcement decisions are contractors involved in?

* On the issue of conflicts of interest:

1) What disclosures are made by the contractors of their private clients? When are such disclosures made? Who reviews them?

2) Is EPA aware of any entities currently subject to EPA enforcement action that are using the same contractors that EPA does?

3) Does the agency believe it has sufficient authority to require disclosure of potential conflicts by its contractors?

* On the issue of EPA control of its contractors:

1) Do you know the actual numbers of contract employees that a given EPA manager is responsible for?

2) How long do contract and project officers remain at EPA?

Thank you for your assistance. If you have any questions please feel free to contact my subcommittee staff at 224-2254.

Sincerely,

David Pryor

DP:rg

United States
Environmental Protection
Agency

External Affairs (A-100AE)
Washington DC 20460

Legislative Analysis

EPA

MAR 7 1989

Honorable David Pryor
Subcommittee on Federal Services,
Post Office and Civil Service
Committee on Governmental Affairs
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Thank you for the opportunity to clarify some of the issues discussed at the February 3, 1989 hearing on EPA's management of consultants and contractors. I have enclosed our responses to your questions which were addressed in your February 15, 1989 letter.

Sincerely,

A. Henry Schilling
Director, Office of
Office of Legislative Analysis

Enclosure

U.S. ENVIRONMENTAL PROTECTION AGENCY
PROCUREMENT AND CONTRACTS MANAGEMENT DIVISION

FEBRUARY 3, 1989 FOLLOW-UP QUESTIONS AND ANSWERS

ISSUE: On the question I asked you at the hearing in regard to the Environmental Protection Agency's use of outside legal services: The specific information I am interested in is any FY87 contracts between EPA and law firms for the purpose of securing legal services. If there are any such contracts (please note I am not asking for purchase orders) then I would like the name of the firm (s) and the dollar amount of the contract.

ANSWER: EPA did not contract with any law firms for legal services in Fiscal Year 1987.

ISSUE: On the issue of using contractors in general:

QUESTION: What rules govern the types of work that can be contracted out?

ANSWER: The rules which govern the types of work that can be contracted out are set forth in the Federal Acquisition Regulation (FAR) (Part 37), Office of Management and Budget (OMB) Circulars, A-76, "Policies for Acquiring Commercial or Industrial Products and Services Needed by the Government" and A-120, "Guidelines for the Use of Advisory and Assistance Services", EPA regulations, all applicable statutes and internal policies and procedures.

QUESTION: What is the basis in law for relying on contractors to do basic policy work? Are the policy and management support contracts classified under A-120 or A-76?

ANSWER: Civil service laws and other statutes require that certain functions be performed by Government employees. Contractors are hired by EPA only when it is appropriate and necessary. EPA does not hire contractors to make policy decisions for the Agency. This restriction is imposed by the Federal Acquisition Regulation, Part 37 which represents an implementation of OMB Circular A-120. It provides that advisory and assistance services shall not be used in performing work of a policy, decision-making, or a managerial nature. However, the Agency may require analytical assessments to assist Agency policy and decision makers. This work can be done by contractors.

OMB Circular A-76 defines a Governmental function as one which is so intimately related to the public interest as to mandate performance by Government employees. These functions are not in competition with the private sector. This includes those activities which require either the exercise of discretion in applying Government authority or the use of value judgment in making decisions for the Government.

Policy and management support functions can be contracted out if deemed appropriate under A-76. These contracts are generally classified under OMB Circular A-120 as advisory and assistance services.

QUESTION: What rules govern the use of contractors for enforcement-related work? What kinds of enforcement decisions are contractors involved in?

ANSWER: The vast majority of the enforcement-related work is carried out under the Technical Enforcement Support (TES) contracts. These contracts assist the Agency in accomplishing enforcement activities under RCRA and CERCLA. They are governed by the same regulations as any other contract awarded by EPA, i.e., the Federal Acquisition Regulations, the EPA Acquisition Regulations, and all applicable statutes, internal guidance, and procedures. EPA has developed the following clause for all its contracts:

Organizational Conflicts of Interest - This clause requires prospective contractors to disclose all information concerning actual or potential conflicts of interest prior to award. It also requires the contractor to make similar disclosures after award if new conflicts arise. The clause requires that the prime contractor pass this provision down to all subcontractors. If a contractor was aware of a potential organizational conflict of interest and did not disclose or misrepresented relevant information to the contracting officer, the Government may terminate the contract for default, debar the contractor from Government contracting, or pursue other remedies permitted by law or the contract.

The work carried out by the TES contractors is of such a sensitive nature that EPA has developed a number of specific conditions to ensure that these contractors remain free from any conflicts of interest that might actually or even appear to affect their objectivity in carrying out the work of the Agency. The specific provisions beyond the standard ones are:

Notice of Conflicts Regarding Personnel - This clause targets individuals working on a contract. The contractor is required to notify the contracting officer of any actual, apparent, or potential conflict of interest with regard to any individual.

Prohibition on Future Contracting - A contractor cannot represent a private party on any work on a site for which the contractor performed work for the Agency during the life of the contract. This clause prohibits the contractor from competing for remedial planning and implementation projects offered by the private sector for sites for which the contractor performed work for the Agency.

Project Employee Confidentiality Agreement - The contractor staff cannot disclose to a third party any information relevant to an enforcement action with which he/she had involvement under the contract without first obtaining the approval of the contracting officer. This agreement is effective for the life of the contract.

The involvement of EPA contractors in enforcement decisions is, for the most part, peripheral. A contractor may assist EPA in determining what evidence is necessary to identify the company responsible for creating the Superfund site, commonly called the PRP -- Potential Responsible Party. For example, the contractor can provide personnel, services, and materials beyond what is already gathered to identify these responsible parties.

In addition, the contractor may be asked to provide expert witnesses to give testimony in Federal court and participate as a member of the litigation/negotiation team. EPA's litigation teams are mainly comprised of Department of Justice attorneys and EPA regional technical and legal staff but do rely heavily on the use of expert witnesses from outside the Government.

ISSUE: On the issue of conflicts of interest:

QUESTION: What disclosures are made by the contractors of their private clients? When are such disclosures made? Who reviews them?

ANSWER: The "limitation of future contracting" clause prohibits Superfund contractors from pursuing business opportunities that may involve a conflict of interest or the appearance of such.

In order to prevent this from occurring, EPA contractors cannot work on projects (within the geographical area of their contract) for state or local governments or the private sector without the written approval of the contracting officer. Contractors are required to provide in advance the following information:

* the name of the potential client;

* the name and location of the site;

* the nature of the work; and

* whether the site is on the National Priority List.

Generally, the contractor also provides a rationale explaining why the pursuit of the business interest is not a conflict of interest. The contracting officer discusses the request with the project officer. This information forms the basis for the decision to deny or consent to the contractor's proposal. The final decision is made by the contracting officer.

Under the organizational conflict of interest provisions described on page 2, EPA would expect the contractor to disclose its client involved in a potential organizational conflict of interest situation when furnishing EPA with all information regarding the clause.

QUESTION: Is EPA aware of any entities currently subject to EPA enforcement action that are using the same contractors that EPA does?

ANSWER: An EPA contractor may not work for the Potential Responsible Party and EPA on the same site the PRP may have been responsible for creating. In order to prevent any conflicts of interest or the appearance of such from occurring, an EPA contractor cannot compete for any contracts within the geographical region covered by its contract without the prior written approval of the EPA contracting officer. There are no restrictions imposed on contractors to prevent them from working for both the PRP and EPA at different sites outside the geographical region covered by the contract.

QUESTION: Does the agency believe it has sufficient authority to require disclosure of potential conflicts by its contractors?

ANSWER: EPA uses certain authorities to require disclosure of potential conflicts of interest by its contractors. These provisions are agreed to by contractors before they can do business with EPA. They include organizational conflicts of interest and limitation on future contracting provisions. New regulations, currently under development by the Office of Management and Budget, would give EPA additional useful authority in this regard.

ISSUE: On the issue of EPA control of its contractors:

QUESTION: Do you know the actual numbers of contract employees that a given EPA manager is responsible for?

ANSWER: The actual numbers of contract employees vary tremendously. Due to this wide variation, we cannot provide the Subcommittee with any estimates we would feel comfortable in submitting for the record.

QUESTION: How long do contract and project officers remain at EPA?

ANSWER: Contracting officers have worked at EPA an average of 6 years. The average at Headquarters is somewhat less; at other locations, it is somewhat higher. According to a recent internal EPA study of a sample of project officers, we found that the project officers have an average of 9.5 years of experience at EPA. However, in the Superfund Program, the average is considerably less. In fact, many have less than two years of experience due primarily to the rapid expansion of the Superfund Program over the last few years.

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STATEMENT FOR THE RECORD

BY

NATIONAL FEDERATION OF FEDERAL EMPLOYEES

LOCAL 2050

BEFORE

THE SUBCOMMITTEE ON FEDERAL SERVICES,
POST OFFICE & CIVIL SERVICE

SENATE COMMITTEE ON GOVERNMENTAL AFFAIRS

FEBRUARY 1989

Mr. Chairman:

I am William Hirzy, President of Local 2050, National Federation of Federal Employees, representing about 1200 professional employees at the Headquarters of the Environmental Protection Agency in Washington. I would like to give you the Union's impressions of the effect of present contracting-out policies on employee morale and on the efficiency of the Civil Service in carrying out the mission of EPA.

I will draw heavily in this testimony on the work of my predecessor, Bill Coniglio, who last year completed a study of staffing at EPA Headquarters and its relationship to EPA's ability to accomplish its assigned mission with the staff resources available.

The issue of contracting out EPA's scientific and technical work is a serious morale problem, and it also affects EPA's ability to do the job the public expects of the Agency.

You may have noticed the "B.C." comic strip that Johnny Hart did in December on EPA. In that strip a baby ant asks its daddy, "What's an example of environmental waste, Dad?" The reply was, "The E.P.A.". Environmental organizations accuse EPA of "bureaucratic senescence", "voodoo toxicology", and "failure of spirit". And Richard Dowd, writing in the December issue of Environmental Science and Technology said, "Political stalemates, institutional barriers and resource constraints have combined to make the environmental regulatory system unresponsive, even unworkable". None of us signs on at EPA with the expectation of being pilloried in these ways. We expect to do a professional job of executing the laws you in Congress have passed, with the President's concurrence, to protect human health and the environment. But Dowd has hit the nail right on the head.

EPA has become a different organization from the one created nearly two decades ago to address the Nation's environmental problems. No longer is it an Agency that uses the knowledge and experience of a skilled, broadly-based scientific and technical staff to identify and solve environmental problems. It has largely become a management and contract-support organization that operates in a reactive rather than pro-active fashion in dealing with environmental problems. No longer are scientists encouraged to "Go out and identify and solve environmental problems". They are instructed instead to await a pronouncement of the existence of a problem from you in Congress or citizens' groups, outraged at toxic insults to their communities. They are not encouraged to publish their work and gain the stature among peers necessary to advance their careers and, in so doing, bring additional credibility to the Agency's work.

This shift in philosophy by the Agency has been implemented, to a great degree, by a conscious or unconscious drive to eliminate senior scientific and technical people from the career

staff, and to "buy science" from the private sector instead. Some times "science" is "purchased" from other agencies. An example of this, which illustrates not only the morale, but the efficiency-of-the-Service problems, is the Toxicological Profiles program under the Superfund Amendments and Reauthorization Act of 1986.

It was perceived by Congress that EPA did not have the scientific personnel (or standing?) to write these profiles. As a result, the Agency for Toxic Substances and Disease Registry was given the job instead of EPA. Then, because ATSDR in fact didn't have the resources to do the job, EPA was brought back into the picture. But now, EPA's job was not to use high-level scientific expertise to address an environmental problem; instead EPA was to manage contracts that were let to the private sector to do the work EPA should have been doing as a matter of course. What I mean by that is, had EPA been operating as a science-based, mission-oriented Agency, encouraging the development and maintenance of senior-level scientific personnel in the Civil Service, "toxicological profiles" could literally have been taken off the shelf, turned out by resident EPA Civil Service staff scientists who were experts on the chemicals of concern---more quickly, more cheaply, and with the public interest as the paramount consideration. What has happened instead is that EPA staff have gotten the message loud and clear, "You are not worthy to this kind of scientific work".

Another astounding example of contracting out, recently brought to the Union's attention, is a contract that EPA has with the Cadmus Group. This contract permits contracting out virtually every single staff function in the Office of Toxic Substances except that of the Office Director. The contractor is authorized to do everything: from health effects-, exposure-, and risk assessments to lay out of regulatory options to response to public comments on proposed rules. The only job left for a Civil Service person is to select a regulatory option, a job reserved for the Office Director--no staff needed, thank you very much!!

This Agency's mission is one of protecting humanity's ability to live on this planet, and it is inextricably bound up in science. Mr. Chairman, there are no senior level scientists in EPA in the fields of plant physiology and pathology, wildlife biology and zoology, fishery biology, soil science and geology, oceanography or immunology, and you are looking at the one and only GS-15 level chemist in all of EPA Headquarters.

This Union sees a dark future for the Agency unless the trend toward ever more contracting out of Civil Service jobs is reversed, and the public's interest in environmental protection is again entrusted to sworn-to-duty Civil Servants. That dark future is one in which political appointees and their legal pathfinders decide on a course of action, then they go to the private sector to purchase "scientific cover" for their decision,

and EPA "scientists" (in reality merely technically literate clerks) are relegated to the job of managing contracts to provide the "scientific cover" for purely partisan political decisions.

Let me assure you, Mr. Chairman, that staff Civil Service professionals at EPA recognize their Constitutional role as advisors to those who hold elective or appointive office under our democratic government. We have no quarrel with that role; we simply want to be able to do the best possible professional job as members of the Civil Service in that role.

Mr. Chairman, if the Congress wants the Nation's environmental programs to be run as exclusively partisan political exercises, if the public thinks that "EPA as Environmental Waste" is a function of too much science and engineering professionalism at EPA, if environmental organizations prefer to trust political appointees, their legal advisors and contractors to restore the spirit and zeal of EPA in faithfully executing environmental laws, then, by all means, contract out the whole of EPA's science function.

If, on the other hand, Congress and the public want apolitical administration of environmental laws, if they want excellence in science and engineering to drive implementation of those laws, then EPA needs to reverse course and to send proposals for more contracting out of our professional jobs to the destination they deserve--a Subtitle C landfill!

We urge to you ask our new Administrator, Bill Reilly, in whom we place high hopes, to conduct a full-scale study of the staff resources needed to do EPA's work with Civil Service professionals, and to report the result to you--and us.

ASSESSING CONTRACTOR USE IN SUPERFUND

A Background Paper of
OTA's Assessment on
Superfund Implementation

January 1989

OFFICE OF TECHNOLOGY ASSESSMENT
CONGRESS OF THE UNITED STATES

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Introduction

This background document presents some preliminary findings from OTA's ongoing Superfund Implementation assessment; the final report will be issued later this year. (Previously, OTA examined Superfund in its 1983 report *Technologies and Management Strategies for Hazardous Waste Control* and its 1985 report *Superfund Strategy*.)

To a large extent, the U.S. Environmental Protection Agency's Superfund program attempts to manage environmental cleanups by managing contractors. As Superfund budgets have grown, dependence on contractors has grown. Contracting means that the private sector works for the government and sometimes even conducts the business of the government. OTA's continuing work on Superfund has become focused on two key contractor issues:

1) Does large scale contracting in Superfund compromise environmental performance and is it cost effective?

2) Is there a good balance between using contractors and government workers in Superfund implementation?

In principle, privatization of government programs is not in conflict with the public interest, but **only** if there is effective government management and oversight. Indeed, the latter point is a critical Superfund issue. The effectiveness and efficiency of Superfund contracting depends in large part on how well **government** workers, career professionals, and political appointees design, administer, and review contract work. And because Superfund activities are so technical, good contract management requires **independent** technical expertise of government workers. Inevitably, therefore, discussing Superfund contractors means addressing workforce issues in the Environmental Protection Agency (EPA).

To put the contractor issue in perspective, it is instructive to take a long-term view of cleanups of chemically contaminated sites in the United States. In our 1985 report *Superfund Strategy* we estimated the cost of future cleanups at about $300 billion by government and industry over about 50 years. Today, with new information on how many sites require cleanup and on cleanup costs, that estimate looks low. OTA believes that a more realistic estimate is perhaps $500 billion in cleanup costs facing American society over at least 50 years.[1] However, until now government and industry have probably spent between $5 and $10 billion on cleanups--only 1 to 2 percent of what they may ultimately spend. In a sense, the early experiences with Superfund have been experimental and there is still time to learn from them in order to refine and improve Superfund and other cleanup programs. In the larger debate on Superfund that will intensify during the coming months prior to the next congressional reauthorization, reexamination of the roles of government and contractors could yield a large benefit.

After the program was reauthorized in 1986 by Congress for five years at $8.5 billion, Henry Longest, Superfund program

1 This estimate does not include projections for clean up of Department of Energy facilities.

director, addressed the use of the greatly increased funding:

> A major portion of these resources ... are to be allocated for extra-mural contracts. Consequently, successful pursuit of the Agency's Superfund objectives will depend in large part upon the Program's ability to direct and manage contractor resources effectively.[2]

For many tasks, there really is no alternative to using contractors for Superfund implementation. Originally, Superfund could not have been implemented as quickly as it was without major use of contractors, especially for emergency responses and initial site studies. Superfund will always use contractors, and OTA is not suggesting that the government can do away with contractors in Superfund implementation. However, a serious discussion of the role of contractors in Superfund is needed.

Even though contractors in general are highly professional and want to do a first rate environmental job, how well the public interest is served depends on how well a program is managed by the government. If the government does not demand, measure, and reward quality contractor work, it will not get it. And our research on Superfund since 1980 agrees with findings of the General Accounting Office (GAO), EPA's Inspector General (IG), and environmental groups that poor **technical** performance has been a problem, not all of the time, but all too frequently. Much of this results from the rapid initiation and expansion of the program and the enormous pressures imposed by the public and Congress on the program to perform quickly. The limited number, limited experience, and high turnover of EPA's staff has made it very difficult for EPA to assure the environmental performance and economic efficiency of Superfund's contractors all of the time. And the problem is compounded by the inexperience and high turnover of workers for contractors, resulting from the explosive growth of that industry driven by the higher spending appropriated by Congress.

Understanding the role of contractors in Superfund means looking beyond what contractors do with equipment in the field, at specific sites. **Contractors conduct so many program activities that, taken as a whole, the contracting industry has enormous influence over Superfund, perhaps more than Congress, the public, environmental groups, the news media, and other institutions.**

Superfund's contractors do much more than detailed, engineering work. In a multitude of various work assignments, they play a major role in conceiving, analyzing, and structuring the policies and tasks which make up the Superfund program. In large measure the government (EPA, other Federal agencies, and State programs) depends on contractors for key information, analyses, insights, and management. Many of the government's most experienced workers have become senior managers for contractors and therefore may now be providing advice to more junior government workers. This contractor system is largely hidden from public scrutiny and accountability.

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2 U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, OSWER Directive 9242.3-07, memorandum from Henry J. Longest to division directors, (date unclear: March or May 1987).

Summary

This background paper explores five key questions about contracting in the Superfund program. Here we give a capsule summary of our findings for each key issue and then present some thoughts about the use of Superfund contractors in the future.[3] A more detailed discussion of congressional policy options will be given in the assessment's final report. In the following sections, we explore the key issues in more detail and include several specific examples of contract and contractor problems.

Five Key Questions

First, to what extent is the program dependent on contractors?

During the last eight years, the Superfund program has been increasingly dependent on contractors, who have received between 80 and 90 percent of its funds each year. Over that time, private contractors have received $4 billion from the Superfund program.

Program funds for external spending increased 27 percent in 1989 over 1988, from $946 million to $1.24 billion. For internal, administrative expenses in fiscal year 1989, the Superfund program has $8 million more than it had in fiscal year 1988--an increase of 4 percent, from $182 to $190 million; that is, no real increase in constant dollars. Figure 1 shows how money for contracting (over 80 percent of external funds) has escalated sharply between 1982 and 1989 while, in comparison, funding for EPA staff (about 65 percent of administrative funds) has remained flat.

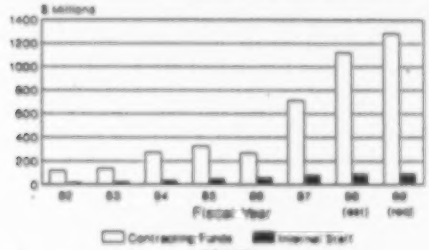
Low funding for EPA staff in general has resulted in low salaries for key Superfund people. Remedial Project Managers (RPMs), for example, who are on the frontline of Superfund implementation, can make less than $20,000 a year while being responsible for several sites, each involving multimillion dollar contractor studies and cleanups. They also have little in-house technical, legal, and administrative support because of limits on EPA staff. A recent contractor study for EPA's Office of Research and Development documents Superfund implementation problems caused by heavy dependence by EPA staff on contractors working for EPA and responsible parties (see box A). To illustrate contracting issues in Superfund, we later discuss the new remedial cleanup Alternative Remedial Contracts Strategy (ARCS) contracts.

Second, why depend on contracting to such a great extent?

The dependence on contracting is an outcome of both congressional and EPA decisions in the early 1980s. Originally, there was general agreement that Superfund had to be implemented quickly and would be only a short-term program and that the necessary technical expertise existed in the private sector. Therefore, heavy reliance on contractors seemed to make economic and environmental sense. But we now know that Superfund will be needed for many decades. And it has become clear that the technical difficulties in cleaning up many different

3 No discussion of contractor liability is included here. Although contractors and some others believe this to be an important issue, OTA has not seen evidence to connect contractors' concerns about their liabilities with their willingness to enter or stay in the market or their performance. More and more large and small firms of all types have entered the Superfund market. Either contractors have found ways to address their liabilities (e.g., self-insurance, subsidiaries, indemnification, protection by State laws) or the profit potential is great enough to offset concerns.

Figure 1
Superfund Program
Contracting v. Internal Staff Funding



Source: OTA, from EPA's direct obligations budget, as submitted annually to Congress. The amounts on this figure are a subset of those in table 1.

types of chemically contaminated sites were--and to some extent remain--quite novel compared to past environmental efforts, such as applying air and water pollution control technologies at industrial facilities.

Moreover, the rapid growth of the national cleanup effort, both in Superfund and many other cleanup programs, has meant that technical experience and expertise in the private sector has likely been spread very thin. Before Superfund, there were probably only a few hundred technical people working on cleanups. Now there are probably about 20,000 technicians, engineers, and scientists. Currently, there are not enough appropriately trained and experienced engineers and scientists to implement a high quality and expanding national cleanup program. Moreover, there has been a steady drain of people with experience and expertise away from government to contractors that compromises the environmental performance of Superfund because it makes it harder for EPA to supervise contractors adequately. For example, EPA's Region 2 told OTA that, because of two new, large contracts, they expect to lose 20 percent of their technical staff. All of this suggests that it is now time for Congress to reexamine the use and management of contractors in Superfund.

Third, is this degree of dependence on contractors appropriate?

Superfund could not exist without contractors. The issue is how much they do, how the government manages them, and whether contract work is consistent with traditional views on what should be contracted out. For example, developing policies and regulations and providing management and oversight seem the least appropriate activities for contracting out, but contractors do a lot of work in these areas for Superfund that seem to go far beyond supportive information and analysis. (Policy, program, and analytic support contracts total about $75 million over 1987 to 1991.) Government workers hold on to official decisionmaking. But, **the mobility, limited experience, and high workload of the government workforce can cause a subtle shift from control and use of contractor expertise and services to dependence on them (and may well have already done so).**

BOX A.--Excerpts from an EPA Contractor Study

"RPMs [Remedial Project Managers] are dedicated, enthusiastic, and energetic, but they feel burdened by their intense site responsibilities, and are aware of a wide gap between their level of skills and knowledge and the requirements of the job. RPMs suggest they lack the resources and support needed to adequately represent and defend EPA's position at the site specific level. They indicate tremendous frustration in that they perceive they, alone, are responsible for critical and costly site decisions. They blame this frustration, along with their low pay (relative to that of private contractors), for the high turnover rates in the RPM position. Provision of technical support and assistance, particularly in the form of standards, guidelines and techniques, is crucial for bridging the gap between RPMs' skills and technical knowledge and their job requirements."

"While RPMs report extensive reliance on EPA contractors for providing TA/TS, [technical assistance/technical support] they are often uncertain about the quality of the contractors' work and the appropriateness of the contractors' suggestions and would like guidance from EPA in these cases."

"... Of the [EPA] scientists in this group some indicate that when problems with technology transfer occur, it is because the RPM lacks the expertise needed to interpret their materials. As one [EPA] lab scientist expressed it: 'You expect a certain level of expertise and you find it's just not there.'"

"... Many of the RPMs believe that the PRPs [potentially responsible parties] often seek the least expensive, rather than the best, clean-up techniques and are willing to expend considerable amounts of money in attempts to establish justification for the less expensive clean-up procedures."

Two statements attributed to RPMs by the study are:

- "The best and the brightest are working for the PRPs."
- "One of my PRPs has a contract with the best geologist in the state ... so I'm going against that person ... I don't have the resources to come back against some of their comments and concerns."

Source: U.S. Environmental Protection Agency, *Outreach Initiative on Superfund Remedial Investigation/Feasibility Study (RI/FS)*, contractor report prepared by Barri A. Braddy and Judy A. Holley, Research Triangle Institute, Summer 1988.

Indeed, some contractor activities seem to be activities that the Office of Management and Budget has described as inappropriate for contracting out because they are "inherently governmental" and "require either the exercise of discretion in applying Government authority or the use of value judgement in making decisions for the Government."[4] At the other end of the spectrum, testing at sites (e.g., to measure contamination and delineate the hydrogeology) and the actual physical cleanup work appear to be the most appropriate activities for contracting out.

Fourth, does this degree of dependence on contracting reduce environmental effectiveness?

Because of poor quality technical work, this high dependence on contracting is proving to be at odds with the environmental mission of the program (i.e. timely, permanent, and complete cleanups) and desires for a cost-effective program. OTA's work and that by the General Accounting Office and EPA's Inspector General provide evidence of poor environmental performance in Superfund. For example, OTA's June 1988 report *Are We Cleaning Up? 10 Superfund Case Studies* found "that Superfund remains largely ineffective and inefficient." More recently GAO concluded that "Programs to ... clean up waste from old, inactive waste sites have not been well managed."[5] Among those forces which can jeopardize the quality of contractor work are:

- the lack of development of internal EPA expertise, which results in poor contract management and oversight;
- more interest in controlling contractor costs than concern about the environmental performance of contractors;
- a mobile workforce whose perspective on quality, needs, and accountability can shift as it moves from the government--a purchaser of services--to and among contractors--a seller of services; and
- conflicts of interest that arise because working for the government may affect future work in the private sector.

Fifth, is the dependence on contracting cost effective?

There is no *data* which proves whether so much contracting, covering so many different activities, is cost effective or not. A detailed independent study would be useful, especially in light of growing concerns about how much cleanups are costing, questions about whether Superfund is needed, and interest in having more cleanups done by responsible parties. Such a study should be conducted by an independent group, because the contracting industry has become a constituency benefiting from a large Superfund program. (Many firms active in the cleanup business have had increases of several hundred percent in revenues and even larger increases in net incomes over the past five years.)

Definitive information may not exist about the cost effectiveness of Superfund contracting, but some trends are clear. First, because demand for cleanup services has grown faster than supply, the government will face increasing costs resulting from inefficiencies (e.g., poorly done work which must be repeated). Also, many people are leaving EPA for higher salaries and better working conditions as contractors. And prime contractors are paid for supervising subcontractors. Thus, **with the explosive growth in demand for talent and services outstripping supply, how can the current high spending levels on contractors be the most cost-effective policy?**

4 Office of Management and Budget, Circular A-76 (revised), Aug. 4, 1983.

5 U.S. Congress, General Accounting Office, Environmental Protection Agency Issues - Transition Series, GAO/OCG-89-20TR (Gaithersburg, MD: General Accounting Office, November 1988).

There is another point to consider. Compared to cleanups managed by responsible parties, EPA probably pays lower unit costs (lower average hourly costs and lower profit margins), but other factors, leading to low efficiency and low contractor productivity, transform low unit costs into high total costs. Constant changes escalate costs; for example, high turnover of Remedial Project Managers, demands for more extensive documentation, changing government policies affecting the analysis and selection of sites and cleanups, and changing of contractors with significant repeating of work. Also, because of regulatory, enforcement, and litigation concerns, government contractors are likely to rely more heavily on expensive worker protection equipment and quality controls for data than contractors working on private cleanups. From looking at actual costs and speaking to contractors and companies which also use contractors for their private cleanups, OTA concludes that it is not uncommon for the government to spend from 100 to 500 percent more than a private client would spend to accomplish the same site study or cleanup. A clearer understanding of how much of this higher cost buys a better cleanup and how much does not would be very useful, particularly from the perspective, shared by many people, that more cleanups ought to be done by the responsible parties, with oversight by government. More enforcement and settlements and more cleanups by industry, however, mean more demands on EPA staff and more demand for workers by contractors.

Future Directions

There are no easy or quick solutions to these problems. Contractors in Superfund and the other Federal cleanup programs will remain necessary. It seems clear, however, that if Congress wants to achieve major improvements in Superfund it will benefit from rethinking the role of contractors. Doing so also means addressing EPA's Superfund workforce and is, therefore, integral to strengthening EPA's Superfund program.

Simply pouring more money into Superfund and placing more emphasis on enforcement and privately financed cleanups would not necessarily improve the environmental performance of the system. Without addressing how EPA uses, selects, and supervises contractors, these actions--like so many cleanups we have examined--are likely to prove an impermanent solution to what we believe are the core problems of poor environmental performance and low cost effectiveness in Superfund.

Some opportunities for congressional examination are:

1. Reducing the Dependence on Contractors

For a long-term Superfund program, should some current contractor activities be shifted totally or in part to the government? Answering this question means assessing what tasks make sense for a permanent Federal cleanup program and deciding what funding and government personnel instead of contractors are needed to perform these tasks. The analysis of policies and creation of policy options, evaluation of contractor and EPA regional performance, development of implementation plans for new policies and technical guidance, communication with communities, maintenance of data bases and hot lines, evaluating new technologies and operating technology transfer programs, decisions on need for and extent of cleanup, and using data from contractors to prepare key decision documents (e.g., Records of Decision) and reports to Congress seem to be the kinds of activities which government workers could perform *directly*.

More significant than a shift *in spending* from contractors to EPA, which would still

be small compared to total spending on contractors, would be the shift *in responsibility* from contractors to EPA. Even in highly technical areas, most amenable to using contractors, there would be substantial benefit from having *a small portion* of the work done by government workers. Only in this way, by directly doing technical work, will government workers truly learn the most important technical aspects of the program.

Reducing dependence on contractors requires addressing workforce issues in EPA, such as the number, experience level, compensation, morale, and technical support systems (i.e., databases, access to technical advice, and continued education) for government professionals. To make key, *independent* technical decisions government workers need to understand site contamination and risks, cleanups, and contractor work. The government needs to devise a detailed plan, inevitably meaning some higher costs (see option 3), to attract and keep the best and most experienced technical specialists and program managers. Otherwise, contractors will lure them away with higher salaries and other inducements.

2. Improving Government Management of Contractors

How can people in EPA regional offices, where most Superfund implementation will always occur, exercise tighter management, quality control, and reviews of contractor activities done directly for the government and for PRPs? Doing so requires more technical people in site project management closely monitoring the substance of contractor work. At EPA headquarters, technical staff with regional experience could independently monitor ongoing regional contractor activities. Early checks for consistency and technical quality are critical to improve the efficiency and effectiveness of Superfund. This need increases as the Superfund program moves toward spending more of its money on site cleanups, which cost much more than site studies. This too means addressing the recruitment and retention of EPA's technical professionals to strengthen the program.

3. Shifting Superfund Spending

Can government bring demand for talent and services back into better balance with supply?[6] To improve the near- and long-term environmental performance of the program, Congress can consider **temporarily decreasing, for perhaps five years, annual Superfund spending for contractors by 30 percent to 50 percent (roughly $400 million to $600 million per year).** In the longer term, however, there may well be need for increased spending for contractors. But long-term performance could be improved if, in the near term, money was made available for increasing *government* staff to strengthen EPA's Superfund program by addressing the previous two options.[7] Indeed, improving environmental performance by cutting contractor spending *requires* improving and expanding EPA's workforce. Moreover, for improving the *long-term* national cleanup program, other important ways to use some of the money diverted from contractors in the near term include:

6 The amount cut from contractor spending would be about 10 times greater than the increase for internal EPA spending to address the previous two options. The impact on the consulting industry would be mitigated by the expected increases during the next five years in the cleanup area by other Federal cleanup programs, States, and private industry. Conversely, the current demand/supply imbalance could get worse if Superfund spending remained constant (or increased) and if there was a marked increase in enforcement which caused more responsible party cleanups.

7 Increasing just money would not be sufficient. To increase both the size and the quality of the workforce, the number of allowable full-time equivalents (FTEs) in EPA headquarters and each region would also have to be raised, and the average pay level per FTE would have to increase, ultimately raising the average pay levels in the program. The increase in numbers of government staff would be much smaller than the decrease in contractor workforce. This difference would help cause some shift of people to EPA if working conditions at EPA are also improved.

- substantial increases in government R&D and support of private sector R&D to provide more cost-effective cleanup technologies for particularly difficult sites, like large landfills, and to reduce long-term program costs;
- support for educational programs to train and increase the engineering and scientific workforce for increased contractor activities in the future;
- more support for basic research on health effects of hazardous substances to support more accurate risk assessments; and
- more money for assessing how many sites require cleanup.

4. Rethinking Cleanup Priorities

Public support for option 3 critically requires confidence that environmental protection will not suffer. **Reexamining Superfund's priorities means understanding what kinds of current high cost contractor activities could be postponed without threatening public health and environment, versus those which truly are necessary to address urgent site problems.** Establishing better defined and more clearly understood *priorities* for Superfund merits much more attention for its own sake but especially if shifts in spending are considered and if more private party cleanups are sought. For example, some site cleanups are being justified on the basis of speculative future uses of land or water and hypothesized future risky exposures to hazardous substances. (This is one of a number of issues to be discussed in the full report of this assessment.) In contrast, other sites pose significant risks to people under present conditions. And for many sites in the former category, costly cleanups involve impermanent remedies because permanent ones are not yet available. Would waiting to clean up sites which do not pose reasonably certain *present* dangers make sense? (See OTA's 1985 report *Superfund Strategy*.)

5. Increasing Inspector General Activities

Provide increased resources for substantially more auditing and investigation by the EPA's Inspector General office of contractor activities. John C. Martin, EPA's Inspector General, recently said:

> Our Superfund resources have not kept pace with the increasing size and complexity of the program and the new mandatory requirements imposed upon us by SARA. We have had to defer audit coverage of many significant aspects of EPA management of Superfund in order to fulfill statutory requirements and provide audit support for burgeoning Superfund procurement. **Superfund is particularly sensitive to fraud, waste and abuse,** requiring a substantial investment in training and the development of new audit and investigative approaches [emphasis added].[8]

These and other options will be discussed further in the full report, due later this year.

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8 U.S. Environmental Protection Agency, Office of Inspector General, Annual Superfund Report to the Congress for Fiscal Year 1987, September 1988.

First Key Issue: To What Extent Is Superfund Dependent on Contractors?

The Superfund program has over $1 billion to spend in fiscal year 1989 to buy contractor and consulting services. That amount is 87 percent of EPA's Superfund budget of $1.425 billion. The balance of the appropriated funds for fiscal year 1989--$190 million--will pay for EPA's administrative expenses: the overhead and staff to manage and oversee the contractors' work.

Each year, Congress, through appropriations, reconfirms the policy to contract out the Superfund program. In the first Superfund appropriation (fiscal year 1982) Congress set a cap on administrative expenses of 21 percent ($41.6 million). Between 1982 and 1989, as the total Superfund budget grew *over 600 percent*, Congress allowed EPA's administrative expenses to grow by only 360 percent (see table 1). Until 1987 the percentage of the cap steadily declined to 10 percent or $135 million. In 1988 the cap rose to 16 percent ($182 million) before it declined again in 1989 to 13 percent. If the percentage of the cap had remained constant since 1982 at 21 percent, EPA would have an additional $109 million for internal spending in 1989--a 60 percent increase. As it is, the Superfund program has $8 million more--an increase of 4 percent--to spend internally in 1989 than it did in 1988; that is, no increase in constant dollars. Meanwhile, external (mostly contracting) funds have increased 27 percent in 1989 over 1988; a substantial growth rate for any industry.

Table 1.—Total Superfund Program Appropriations v. Administrative Cap

Fiscal year	Appropriated funds ($ mil)	Administrative cap ($ mil)	Cap as percent of total funds
1982	200	41.6	21
1983	210	37.4	18
1984	410	64.0	16
1985	620	87.6	14
1986	900	90.0	10
1987	1,411	135.0	10
1988	1,128	182.4	16
1989	1,425	190.0	13

SOURCE: Fiscal year appropriations acts. The administrative cap is expressed as, "no more than . . . of these funds shall be available for administrative expenses."

Indeed, data from annual reports for public companies active in the cleanup market frequently show growths in annual revenues of from 200 to 300 percent over the past five years from 1984 through 1988, with net incomes often rising at a much higher rate than revenues.[9] Such growth has also meant sudden, large increases in technical staffs. Although much of this growth has been from Superfund work, a lot of money has been coming from other Federal cleanup programs (which are expected to increase), State work, and private cleanups. In the past year, the financial community has been discussing the bright future for environmental

[9] The following examples taken primarily from company reports illustrate the state of this contractor industry; the companies are long time major Superfund contractors: 1) Ecology and Environment, Inc., net earnings rose 204 percent from 1984 through 1988, while net income rose 365 percent; as the fraction of earnings from Environmental Protection Agency contracts rose from 60 percent to 70 percent from 1986 through 1988, net income per common share rose 50 percent. 2) Roy F. Weston, Inc. earnings rose 240 percent from 1983 through 1987, while net income rose 970 percent and earnings per share rose 600 percent. Weston said that "Fifty percent of the Company's growth has been due to remedial investigations and 'front-end' studies of hazardous waste sites, which require design, construction management and cleanup activities." Moreover, there was a 72 percent increase in staff from 1986 to 1987 an increase of 774 people in one year. 3) ICF sales increased 216 percent from 1983 to 1987, and from 1987 to 1989 sales are expected to double (no data on profits available). 4) Environmental Treatment and Technology net revenues rose 230 percent from 1983 to 1987, while net income rose 160 percent. In the first half of 1987, the company added over 200 employees for a 25 percent increase. 5) CH2M Hill sales increased 25 percent from 1985 to 1987 while net income increased 82 percent.

services firms, in large measure because of the government cleanup business.

Over the eight-year history of Superfund, some private sector consulting and engineering firms have also, inevitably, gained considerable influence over the direction and content of the Superfund program, while government controls have not kept pace. These firms together perform literally all program activities. They develop policy positions for the program; analyze legislation; implement the SITE technology demonstration program; evaluate potential Superfund sites and, through their analyses, determine whether they qualify for fund-financed cleanup. Contractors analyze cleanup technologies, perform risk assessments, identify feasible cleanup alternatives, and draft Records of Decisions. They design cleanups and do the physical job of cleaning up Superfund sites. Rarely does one contractor do all these tasks.

Contractors write government requests for proposals and scopes of work for new government contracts. Contractors participate in the management and evaluation of other contractors.

Contractors also help EPA deal with the public. They operate the Superfund telephone Hotline that responds to questions from the public--a $9 million contract over 1987 to 1989. They sometimes represent EPA at technical conferences and frequently coauthor papers with EPA staff. Public participation programs are designed and run by contractors; contractors represent EPA at citizen participation meetings, and they sometimes prepare the responsiveness summary for site Records of Decision. Contractors develop and run Superfund training sessions and write Superfund publications, including guidance documents that translate the National Contingency Plan (NCP) regulatory instrument into operating principles. The NCP itself results from extensive contractor work. Contractors research and write reports to Congress for EPA and provide other analyses that Congress and others use to evaluate the Superfund program. Table 2, which is from the statement of work for ARCS contractors, illustrates the broad range of activities in the remedial part of the program.

A small portion of Superfund's external funds go to States through cooperative agreements. States then use the funds to contract out much of the Superfund work for which they have taken responsibility.

Each component of the Superfund program has its own set of prime contractors (not including many more firms which carry out field activities and others which are subcontractors in specialized areas). The remedial program has field investigation team (FIT) contractors and remedial contractors (REM and ARCS). The removal program has emergency removal contractors (ERCS and mini-ERCS), technical assistance teams (TAT) contractors, and environmental services assistance teams (ESAT) contractors. The enforcement program has technical enforcement support (TES) contractors, whose work is nearly invisible to the public. While subcontractors greatly multiply the number of firms participating in the Superfund program, Superfund contract money is funneled through a few large firms. Of the total value of active Superfund contracts (of all types), about 70 percent --$3 billion--is split among six prime contractors.[10]

In 1988 EPA revised its contract concepts for the three components of Superfund.

[10]The firms and the total value of their Superfund prime contracts are: CH2M Hill ($829 million), Ebasco ($504 million), NUS ($492 million), CDM ($409 million), Weston ($388 million), and Ecology and Environment ($364 million). Sometimes significant amounts of money go to subcontractors, although the prime contractor typically makes a fee on those amounts. Also, these same firms may be significant subcontractors on other prime contracts.

Table 2.—ARCS Contractor Tasks

1. SITE-SPECIFIC PROJECT MANAGEMENT
   a. Site Planning
   b. Project Monitoring and Control
   c. Project Coordination
2. REMEDIAL PLANNING
   a. Project Planning
   b. Community Relations
   c. Field Investigation
   d. Sample Analysis and Validation
   e. Data Evaluation
   f. Assessment of Risks
   g. Treatability Study/Pilot Testing
   h. Remedial Investigation Reports
   i. Remedial Alternatives Screening
   j. Remedial Alternatives Evaluation
   k. Feasibility Study/RI/FS Reports
   l. Post RI/FS Support
   m. Enforcement Support
   n. Miscellaneous Support
   o. Expedited Response Action
3. REMEDIAL DESIGN
   a. Project Planning
   b. Community Relations
   c. Data Acquisition
   d. Sample Analysis/Validation
   e. Data Evaluation
   f. Treatability Study/Pilot Testing
   g. Preliminary Design
   h. Equipment/Services Procurement
   i. Intermediate Design
   j. Prefinal/Final Design
   k. Post Remedial Design Support
4. REMEDIAL IMPLEMENTATION
   a. Procurement Support
   b. Construction Management
   c. Technical Engineering Services
5. OTHER TECHNICAL AND MANAGEMENT ASSISTANCE
   a. Remedial Oversight
   b. Enforcement Support
   c. Community Relations
   d. Data Management
   e. Analytical Support
   f. Other Technical Support

SOURCE: U.S. Environmental Protection Agency, from the ARCS Contractor Statement of Work.

While the trend is toward increasing the numbers of contracts and giving the regional offices more contracting control, the impetus for the changes differ among the component programs.

- In the remedial program, regional ARCS contracts, as discussed below, are phasing out national REM contracts. They will increase the number and total value of prime contracts and will constitute a layer of project management contractors between EPA and site cleanups. EPA has stated that the ARCS contracts are to improve competition and continuity in and provide performance based incentives for remedial contract work.
- The Superfund enforcement office changed its two national TES contracts ($57 million each) into eight, five-year TES contracts initially valued at $131 million each. The enforcement program claims that projected increased cleanups placed into that division, instead of fund-financed cleanups, will require more money. As of January 1989, six of the contracts were awarded (see table 3).
- The removal program has begun to add regional mini-ERCS contractors to its existing national zone ERCS contractors. An EPA IG report in 1987 on ERCS contractors found excessive costs being charged and suggested that lack of contractor competition was a reason. EPA responded in congressional hearings in April 1987 that the number of ERCS contractors would increase from four to 25 and that 17 of them would be selected that year. One year after the hearings, only eight had been selected for three of 10 regions. This reflects the administrative difficulties faced by EPA in attempting to spend appropriated funds. The total value of active ERCS contracts is about $500 million.

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Table 3.—New Technical Enforcement Support (TES) Contracts (as of January 1989)

Zone	EPA Regions	Contractors	Maximum Value ($ mil)	Contract Hours (1,000s)
One	1,2	Alliance Technology	136	2,480
		CDM	124	2,480
Two	3,4	CDM	118	2,480
		Dynamac	107	2,480
Three	5,6,7	(under negotiation)		
Four	8,9,10	PRC	117	2,480
		SAIC	109	2,480
Total value, $ mil			711	

NOTE: TES Contractors support both Superfund and RCRA enforcement.

SOURCE: OTA from information supplied by EPA.

Alternative Remedial Contracts Strategy

ARCS contracts, for the heart of the Superfund program--remedial cleanups--are new, major project management contracts. Therefore, OTA has examined ARCS contracts in greater detail to illustrate current contracting issues.

ARCS was preceded by the REM contracts started early in the program.[13] Under the REM system, seven national contracts have been awarded. The major REM contracts have been held by four firms: NUS Corp.; CDM; Ebasco Services, Inc.; and CH2M Hill. Total contract value through 1990 is $829 million. Two minority-owned contracting firms have also been awarded small REM contracts, totaling $42 million.

Organized by region or combination of regions (zones), ARCS contracts are expected to number many more than the old REM contracts, because of multiple contracts in regions or zones and the growth of Superfund.[14] Each contract will have a potential value of from $60 to $250 million, or more.

The ARCS contracts were designed to have wide ranging responsibility for the remedial phase of Superfund--from site studies to complete cleanup. The REM contractors were engaged for *individual*, discrete tasks, such as an Remedial Investigation/Feasibility Study (RIFS) or community relations plan, but not necessarily all tasks for a site. For specific sites, the ARCS contractors will: 1) manage site projects, 2) plan and design remedial actions, 3) implement remedial work, and 4) provide other technical and management assistance (see table 2). ARCS contracts, like REMs, will also oversee subcontractors who do pieces of the project work, a practice which is not necessarily ineffective or avoidable. However, the ARCS contractors are supposed to exercise much more control of subcontractors and have more responsibility for their technical work. This is a positive change.

J. Winston Porter, Assistant Administrator of EPA's Office of Solid Waste

13 The official name for REM contracts is: Enforcement and Remedial Planning Activities at Uncontrolled Hazardous Substance Disposal Sites.

14 Initially 30 to 40 contracts were planned; less will probably be awarded.

and Emergency Response, has described ARCS as a new initiative under a "speed the pace theme" for Superfund:

> ... We are looking at site cleanup from a 'project management' perspective. This approach should pay benefits through greater efficiency and accountability. Phases of the process such as developing the [RIFS], design engineering, and construction management could all be accomplished by one firm or organization with proven expertise in project management. Specialized work and opportunities for smaller businesses could be obtained through subcontract from the project management firm ...[15]

The project management approach, of which the ARCS forms the cornerstone, was laid out in an August 1987 memo by Porter. The memo identifies problems in the remedial program of pace, accountability, and continuity. But while the memo explicitly mentions timeliness 12 times, cleanup quality only appears twice. The memo begins, "The Administrator and I have made the completion of current projects *the highest near-term priority* within the Superfund program." Porter then discusses the existing system that "has involved a large number of pass-offs and downtimes, culminating in lengthy project execution periods." The memo concludes that "having so many organizations [REMs, the Corps and engineering firms, contract labs, EPA reviews] involved, we have had difficulty in fixing accountability and responsibility."

Porter states that the objective of the project management concept is: "... to have one management organization with overall day-to-day responsibility for the technical execution of the work." This project management organization would be under the direction of EPA's project manager, but EPA acknowledges that the ARCS contractor, *not EPA managers*, would be "accountable and responsible." Thus, from Porter's perspective, EPA's role is to overview, make fundamental decisions, and be the basic spokesman to the public, governments, and Congress.

According to another EPA document, "the ARCS concept is aimed at increasing competition, incentivizing [sic] performance, and promoting project continuity."[16] EPA has also described ARCS as further decentralization of program responsibility to EPA regions, as the contracts will be awarded and managed by regions, rather than by EPA headquarters.

Project management *in the public interest* by government workers is imperative for Superfund. Moving project management outside the government, however, adds another layer of contractors between EPA and the site problems the agency is charged with identifying and remediating. It avoids fixing a flaw in the current program: not enough internal EPA technical and project management expertise, even with extensive contractor support. Porter's memo (see above) laying out the project management concept recognizes this internal deficiency. He states, "I believe this [project management] concept also recognizes the fact that we will likely have difficulty in maintaining a large cadre of experienced engineering and construction managers in our organization." This is the crux of the issue.

But Porter says contractor project management organizations will eliminate EPA's *need* to "pull all the pieces together." In other words, contractors instead of government workers will manage contractors; contractors will manage projects instead of someone *in the government* managing the projects. The critical issue will

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15 J. Winston Porter, U.S. Environmental Protection Agency, "Superfund Progress and Prospects," remarks prepared for delivery at the Hazardous Materials Control Research Institute Superfund '87 conference, Washington, DC, Nov. 16, 1987, p. 10.

16 "Superfund/RCRA Contracting," an undated EPA document given to OTA in late 1987, p. 1.

remain under ARCS: How will *EPA* ensure effective quality control of contractor work and consistency among contractors?

Will ARCS Increase Competition?

Whether ARCS will increase competition in the remedial program can be evaluated by answering two, related questions. First, has the system been opened up to a wider variety of contractors? And, second, do regional staff have a larger contracting pool from which to draw? OTA's review of the ARCS contracts awarded as of January 1989 shows that the system *is* pulling in some different regional contracting firms that were not visible under the REM system but the effective pool of contractors remains about the same as before.

In some regions EPA staff will have more *prime* contractors to call upon than they did under the REM contracting system. And, while increased numbers of prime contractors implies increased competition and perhaps more EPA control, it does not tell the whole story. Much of the remedial contract work to date has been performed by subcontractors rather than prime contractors. Thus, the real contracting pool under the REM system was as large as it will be under ARCS contracts if both prime and subcontractors are considered.

By January 1989, ARCS contracts had been awarded for Regions 1, 2, 3 and 5 and the zone comprising Regions 6, 7, and 8. Contracts for Region 4 and the zone for Regions 9 and 10 are still under negotiation and signed ARCS contracts are expected this year. Table 4 lists ARCS contracts awarded as of January 1989, including the prime contractors, team subcontractors, and the dollar value of the contracts. The 18 contracts awarded so far have a total potential value of $2.7 billion over 10 years (which is really a relatively small amount for the next 10 years of Superfund).

For the 18 new contracts, 13 firms were selected as primes (three firms won two each, and one firm won three). Of the 13 firms, 9 have had or have national Superfund contracts (four have had REM contracts). Of the 4 *new* firms in the system, 2 have teamed up with other firms (called *team subs*) that have had or have national Superfund contracts. OTA estimates that about 20 percent of the total money will go to firms new to the Superfund system (counting both primes and team subcontractors).

Will ARCS's Performance Incentives Work?

Competition on the basis of quality work *after* contracts have been awarded is more uncertain than competition *before* firms get the work. Incentive to perform well has been supposedly built into ARCS contracts through the awarding of multiple contractors by region and award fees. Thus, RPMs will ultimately be able to pick and choose among the available ARCS contractors, assuming that at any time there is significant unused contractor capacity. Judgments as to which ARCS contractors are performing better than others will take some time, and evaluations will be made prior to completion of major pieces of work (such as RIFSs which take at least a couple of years to complete or complete cleanups which take several more years). Meanwhile, EPA staff plans to evenly distribute work or to make judgements on the basis of their past experiences with the same contractors under the REM system or through personal knowledge.

Under the REM system, a judgement that a contractor was not performing well was difficult to substantiate bureaucratically. Although there are some very experienced and capable RPMs, all too frequently a relatively inexperienced, often young, RPM has to go up against experienced contractors. Even some experienced RPMs have found challenging a REM contractor a difficult and intimidating task. Contractors believe that

Table 4.—Regional ARCS Contracts (signed as of January 1989)

Region	Prime Contractors	Maximum Value ($ mil)	Contract Hours (1,000s)	Team Subcontractors
One*	NUS	148	300	Badger, JHR
	Arthur D. Little	89	145	Remediation Tech, Havens & Emerson, Inc.
Two*	Ebasco Services	223	560	IT Corp., Wehran Eng, Hittman-Ebasco
	ICF Technology	83	145	Gibbs & Hill
Three	NUS	218	560	Gannett-Fleming
	Ecology & Environment	83	145	none
	CH2M Hill	223	560	none
	TetraTech	85	145	Wapora, GeoTrans
	Black & Veatch	85	145	EarthTech
Four*				
Five	CH2M Hill	227	560	none
	Black & Veatch	220	560	Warzyn Engineering
	WW Engineering & Science	58	145	Limno Tech, Dr. J. Goodman, Alderink & Assoc.
	PRC	212	560	ICF, Versar
	Ecology & Environment	61	145	none
	Roy F. Weston	222	560	Dames & Moore, Engineers Intl., Life Systems, Hubble Roth Clark, Reed Quebe Allison Wilcox & Assoc.
	Donohue & Assoc.	227	560	Ebasco, STS Consultants, John Mathes Assoc., Life System/clair
Six and Seven	CH2M Hill	152	300	none
	Jacobs Engineering	150	300	McClellands, Terracon
Eight, Nine, and Ten*				
Total Value, $ mil		2,662		

*Contracts still under negotiation.

SOURCE: OTA from information provided by EPA.

RPMs can and do give contractors critical evaluations. The ARCS system will not change the technical expertise level of RPMs, but the criteria for contractor managers is quite stringent and they are likely to be considerably older and more experienced than most RPMs. In fact, over time ARCS contracts could decrease RPM expertise relative to that of the contractors because ARCS puts great emphasis on contractor site managers, giving ARCS contractors increased importance. Unless there is substantial internal support for and reliance on RPM judgement, making a poor performance rating on ARCS contractors may be more difficult to accomplish--the stakes are higher under ARCS than the REM system. As a result, the project management concept could undermine independent government control of contract work *unless there is increased emphasis on EPA staffing needs.*

Underlying the whole notion that ARCS will breed competition *after firms win contracts* and lead to higher quality work, according to EPA, is that 50 percent excess aggregate capacity has been built into the contracts. EPA says, "This excess capacity is essential to the performance incentives in ARCS since contractors are not assured of receiving orders that will meet the full contract capacity."[17] But will this calculation over the 10-year life of ARCS contracts be accurate? Or, like previous contracting

[17] J. Smith, et al., "ARCS: A Performance Based Strategy," Superfund '88 conference proceedings (Silver Spring, MD: Hazardous Materials Control Research Institute, November 1988). Although the lead author works for EPA, the other two authors of this paper which describes the design and operation of ARCS work for one of Superfund's major program support contractors. Of 36 presentations at Superfund '88 by EPA personnel, two-thirds were coauthored with contractors.

programs, will there be such a high demand by EPA for contractor work that essentially all ARCS contractors will receive the maximum and not the guaranteed minimum amount of work--perhaps long before 10 years? It would be very useful for EPA's IG to monitor the initial flow of work assignments to ARCS contractors during the next year or two to check this critical design feature of ARCS contracts.

Finally, the performance award fee system used in ARCS has been used in other major contracts and, based on our studies, has not resulted in a consistent high level of quality contractor work, although many observers think that there have been definite improvements over time. A November 1986 survey of six EPA regions found about one half of the 32 respondents (mostly RPMs) saying that the award fee approach was not effective.[18] Some specific comments were:

- "There are few, if any, incentives built into the REM contract that discourage the production of mediocre to low-quality documents. The award-fee is not an effective tool to correct problem areas in the RI/FS process; this has the potential to cause (and in several cases it actually has) project overruns."
- "Non-effective--the only meaning it has to the contractors is if it is not average or above. Dollar values are too small to be meaningful."
- "Not effective enough. The contract encourages mediocrity and not excellence."
- "It is not [effective]. It's just gravy to REM contractors already making too much money for low quality work. LOE (level of effort) contracts favor using as many hours as possible. No incentive to do good quality work at a reasonable cost."

Although, theoretically, better performance results in higher award fees, cost control objectives by contract managers may limit award incentives for improved work. Also, it should be noted that giving a contractor a low or a high performance rating, which EPA staff say has the most impact on contractors, requires considerable work by EPA staff. There is a built-in incentive to give contractors average or above average ratings. Also, there is considerable uncertainty from the contractor's perspective on how award fees will be decided, since so much depends on individual judgments by EPA staff.

Will the Project Management Approach Assure Continuity?

Project continuity as a site moves through remedial phases is an important goal and recognition of a lack of it in the program is commendable. But the ARCS solution may not help much.

There has been considerable attention under the REM system to delays caused by *handoffs*; that is, contractor changes between project phases. And when a new contractor lacks confidence in a previous contractor's work, these delays multiply. Since the ARCS contractors will be assigning the same discrete tasks among subcontractors, handoffs will still occur.

Another aspect of project continuity is people. One contract *firm* may have a site project management contract throughout a number of phases of a site project. But this does not guarantee that the same **people** will be involved or will manage the site through the period of the contract. First, as stated above, different subcontractors will be handling different phases of work. Second, EPA requires that senior key contractor personnel work on a contract for a minimum of 120 days. After this period many of these people are likely to be moved to other, probably newer, contracts to help win them. Third, given the high mobility of the Superfund workforce (driven by high demand) and the

[18] U.S. Environmental Protection Agency, "RI/FS Improvement Analysis," contractor study by CDM, July 1987.

length of site projects, there is no reason to believe that, even within ARCS contractors, the managers and technical staffs will remain in place throughout the full cycle of site remediation--or even a significant fraction of it. And, it is people, not solely organizations, that provide institutional memory or continuity.[19] One major PRP has a policy of moving a project to the new firm when a key project manager moves there, something the government cannot do. Moreover, high turnover of EPA people means that project continuity is also jeopardized from the inside.

And, lastly, the project management concept is at risk because of the high overall cost of running a site project through the remedial planning, design, and implementation phases. The award levels of the ARCS contracts may not be large enough to cover that overall cost. For instance, the smaller contracts have maximum potential values around $60 million over 10 years. Turning over just three small sites could consume an entire ARCS contract. This phenomena is already causing one region to assign only RIFSs to ARCS contractors and to await knowledge of the cost of the cleanup before determining whether the ARCS contractors or the Corps of Engineers is assigned the actual remediation. In fact, it is our understanding that, in general, ARCS contractors may only handle the actual cleanup if estimated costs are below $5 million, leaving most cleanups contracted through the Corps of Engineers. This is the same process used under the old REM strategy. And, it illustrates the conflict between the project management and competition goals of ARCS. In order to award multiple contracts per region, individual ARCS contract values have been kept too low to accommodate the true cost of taking a significant number of sites through the entire process and to provide 50 percent excess capacity.

Will Decentralizing Contracting to Regions Improve Management?

On the face of it, giving regions greater control over the contractors who do their work seems efficient and appropriate. It assumes, however, that the expertise to select, negotiate with, and manage contractors is available in the regions. Regional staff will not only have to be able to make technical judgements of contractor performance but also administer increased numbers of higher value contracts. Not only will technical and administrative expertise be required at the regional level but decentralizing to regions will also mean added regional costs.

Does significant management expertise to manage the ARCS exist in EPA regions? Regions have been responsible for managing State cooperative agreements, and in a capping report on State cooperative agreements in 1988, EPA's IG concluded that EPA regions have not been effective managers of State contracts. States have been allowed to fall behind on schedules and not reach goals or objectives. States have been experiencing "significant problems completing [RIFSs]." And, monitoring of State pre-remedial work has been inadequate. The IG found "widespread noncompliance with procurement requirements" by States, which means that States were not adhering to Federal standards in awarding Superfund contracts.

[19] Some contractors are saying that the turnover of key site project management people is really not that important. But site evaluations and cleanups seem to fit a fundamental category of effort--project based--which has always been recognized to require stable direction over reasonably long periods. Like making motion pictures, constructing large buildings, or performing technology assessments, cleaning up toxic waste sites will be more efficient if the same people are in charge from beginning to end.

Overall, the IG said, "Regions were not effectively performing their oversight responsibilities."[20]

Additional evidence of regional shortcomings comes from another IG report which concluded:

> Contracting methods ... did not follow established Agency procurement policies and procedures. Also, EPA personnel allowed contractors to start work prior (up to 8 months) to signing delivery orders and did not subject the technology manufacturers to the normal competitive bidding process.[21]

EPA Administrator Lee Thomas told Congress in April 1987 that expanding competition in contracting services would require increased numbers of contract managers. Referring to removal staff, he said, "We will double the number of contract managers we have on that staff to look at those projects, oversee those projects, from a financial management point of view this year."[22] Doubling contract managers for new removal contracts and doubling contract managers for new remedial contracts will double the cost of administering contracts. But, as noted earlier, as a result of congressional action, there will be no real increase for EPA's spending on the administration of Superfund.

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20 U.S. Environmental Protection Agency, Office of Inspector General, "'Capping Report' on EPA, Office of the Inspector General, Audits of Superfund Cooperative Agreements for Fiscal Years 1985 through 1987," March 29, 1988, p. 4.

21 U.S. Environmental Protection Agency, Office of Inspector General, "Review of Region 4's Management of Significant Superfund Removal Actions," September 1988, p. 6.

22 U.S. Congress, Superfund Implementation, S. Hrg. 100-261, hearings before the Senate Subcommittee on Superfund and Environmental Oversight of the Committee on Environment and Public Works, April 14, 1987, p. 150.

Second Key Issue: Why Depend On Contracting To Such A Great Extent?

Originally, there was congressional concern that Superfund could become a large, unwieldy public works program. Inexperience with uncontrolled hazardous waste sites in 1980, as well as the desire to get a quick start, also fed into the contracting policy decision. Embedded in the statute was also a heavy responsibility for government to identify responsible parties and seek private cleanups and cost recovery for government-funded cleanups.

In 1980, many people thought that cleaning up uncontrolled hazardous waste sites was a short-term problem, to be solved relatively quickly with known engineering techniques. A short-term program had no need for a huge internal government bureaucracy that would gain a life of its own, and Congress wanted the money to be spent on cleaning up sites instead of building a bureaucracy. Also, EPA--a regulatory agency--had no expertise in running a major operational, engineering program. There was, as well, a crisis atmosphere. Congress and EPA assumed that contracting would enable EPA to get the program started faster than if the agency had to first develop internal structure and expertise. These congressional concerns and actions, aided by the Reagan administration's policy to accelerate the privatization of the Federal Government, have led to the current large scale dependence on contractors in the Superfund program.

Regarding its contracting policy and how it came about, EPA told OTA:

> ... The real deciding factor on how to effectively operate and manage the Superfund program was made early in the program and is a result of both Congressional intent and Agency management decisions. Congress envisioned the program to be overseen and managed by the Agency. Agency managers set up the current structure as the most *cost effective and efficient*.
>
> ... The restriction is an end result of the budget development process and is included in the Superfund appropriation as an assurance to Congress that *resources provided will be expended on site cleanup and related activities*.
>
> The Agency believes that *management and oversight* of the cleanup of abandoned hazardous waste sites *is a prudent and appropriate role*. The structure necessary to establish a major construction workforce in EPA for Superfund site work would exceed the role intended by Congress for the Agency and would unnecessarily duplicate services readily available in the public sector [emphasis added].[23]

The relative merits of contracting out versus the use of in-house government staff is an old issue, the pros and cons of which will not be extensively explored here.[24] But, the points usually debated--whether contracting out is cost effective and efficient, results in quality work, and is appropriate for the government activity being contracted out--are questions that Congress might ask of the Superfund program. These are the same questions Congress has been asking about government defense programs. The key issue is the *extent* of contracting and particularly its growth versus building an effec-

23 U.S. Environmental Protection Agency response to an OTA letter, Sept. 29, 1987.

24 For a quick review of the issue, see U. S. Congress, Congressional Research Service, "Contracting Out: Some Basic Policy Questions for the DOD and Other Government Agencies," Report No. 83-142 F, Sept. 19, 1983.

tive government workforce to ensure that contractors provide high quality and cost-effective services.

What was a reasonable policy decision eight years ago may not make as much sense today. First, the Superfund program and related cleanup programs are and will not be short-term Federal programs whose problems can be easily solved. Second, large scale contracting under Superfund has not necessarily been--nor has any attempt been made to show that it is--cost effective and efficient, and it has not yet assured that funds are "expended on site cleanup and related activities," as EPA states above. Third, contracting has not avoided the development of dependent bureaucracies. Fourth, emphasis on contract management does not lead to the development of an infrastructure and technical capability that drives EPA up the learning curve. Fifth, the large pool of contracting money creates a pulling force on personnel--out of the Federal (and State) system and into the private sector. And, sixth, Superfund contracting contains a potential for conflict between public and private interests.

There has been little reconsideration of the immediacy of environmental threats from most Superfund sites. If there is, in fact, not a crisis situation to deal with (only a tiny fraction of Superfund's resources are spent on true emergency situations), then a slower pace of spending on contracting could be justified.

But, as we have shown, the trend is toward increased funding for contracting; sometimes, not intentionally. For instance, the imposition of mandated schedules for attaining certain levels of activities has also contributed to increased dependence on contractors. The policy of mandated schedules was a reaction to a slow program, but Congress gave little consideration to who would do the work and whether the requirements might worsen an already heavy workload for a largely inexperienced contractor and EPA workforce.

Third Key Issue:
Is the Extent of Superfund's Dependence on Contracting Appropriate?

Do the functions of the Superfund program fit traditional criteria for appropriate contracting out? Is the large scale dependence on contractors an appropriate way to manage a long-term, probably 50-year, cleanup program which will span a number of career lifetimes? Or, could the government workforce itself conduct more Superfund work? The latter is an important policy option today.

Superfund Activities and Contracting

Superfund program activities can be broken down into six categories: policy development, regulation development and enforcement, program oversight and management, information collection, site analysis, and the physical work of cleanup. All are contracted out in varying degrees, even oversight and management which EPA claims is the most appropriate role for the agency. Contracting of project management is due to increase under the ARCS system and oversight of PRP (potentially responsible party) takeovers is routinely contracted out (as was suggested by Congress in Section 104(a)(1) of CERCLA).

Federal rules for contracting are issued by Office of Management and Budget (OMB). OMB has exempted, as inappropriate for contracting out, activities that are "inherently governmental" because they are:

> ... intimately related to the public interest ... These functions include those activities which require either the exercise of discretion in applying Government authority or the use of value judgement in making decisions for the Government.[25]

And GAO has said:

> ... a key consideration in evaluating any function [for contracting] is whether its performance by an outside contractor interfers with an agency's control of policy, decision-making, or managerial function which are basic to its mission.[26]

Using the GAO's criteria, each Superfund activity can be evaluated separately. Testing and information collection at sites and actual physical cleanup work appear to be most appropriate activities for contracting out.

The areas of policy, regulation, management, and oversight have the attributes GAO cited and seem the least appropriate activities for contracting out. EPA officials maintain that contractors do not make policy, but if contractors provide virtually all the information and analyses, have staff

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25 Office of Management and Budget, Circular A-76 (revised), op. cit. Circular A-76 covers commercial/industrial services; Circular A-120 covers consulting services.

26 U.S. Congress, Senate Committee on Veterans' Affairs. Oversight on Issues Related to OMB Circular A-76. Hearings, 97th Congress, 1st Session, Nov. 5, 1981, p. 118.

more experienced than EPA, and write key initial drafts, there is certainly a lot of opportunity for contractors to shape policies. Indeed, OTA has examined a number of contractor studies which later became the basis for program policies, including work done to revise the RIFS process and the preremedial process.[27]

Site analysis, as well as physical site cleanup, is technical in nature. But site analysis leads to critical policy decisions, such as whether a site does in fact require cleaning up or whether the Federal system will pay for the cleanup. Thus, using GAO criteria, not all steps in the initial site analysis phase may be appropriate for contracting out. Records of Decision (RODs) are probably an example of an inappropriate step. The ROD incorporates not only technical analysis but embodies policy decisions and has a legal bearing on EPA's ability to recover costs under the enforcement provisions of CERCLA.

Overall, few nonfield, report producing Superfund activities appear **eminently** appropriate for contracting out. The most appropriate Superfund activities to contract out--the physical examination, testing, and remediation of sites--are the most expensive, but so far most of the work has **not** been actual remediation. (This will change as the program matures.) As of June 1988, 103 sites were at the remedial action stage whereas 641 were still undergoing RIFSs. Under current policy, with only 13 percent of the budget in fiscal year 1989 to be spent internally, *all* of that critical analysis on over 600 sites will be done by contractors.

Needed: Independent Contractor Work and Independent Government Capability

When communities, PRPs, OTA, and other groups have raised questions about contractor work at specific sites, EPA has often paid more money either to the original contractor to reexamine the work or to another contractor to repeat the work. Although there are some very experienced and expert staff in EPA, for the most part there is very little internal government capability, both expertise and time, to *independently* check contested contractor work.

Another issue is that the same contractors who do the policy and program support work also do the field engineering work. Does this practice encourage fresh thinking and critical analysis of past work to develop more effective policies? The good side of this practice is that the contractors bring to the policy and program support area real world experience. But the other side is that EPA is not getting independent evaluations of the work of the contractors who are implementing the program. Often EPA hires a contractor that is implementing a technical task for the program to discuss how to improve that task and to suggest policy changes. One of EPA's major contractors in the policy and management area, who has played a key role in the development of Superfund, has now branched out; most of its major recent growth has been from winning engineering and project management ARCS contracts to implement the programs it helped create. Did it have a special competitive advantage?[28]

27 See OTA's testimony, hearing before Subcommittee on Superfund and Environmental Oversight, Senate Committee on Environment and Public Works, Dec. 10, 1987. Two contractor reports were discussed: "RI/FS Improvement Analysis," by CDM, July 1987, and "Workload and Resource Requirements for Preliminary Assessments, Site Inspections, and Hazard Ranking System Evaluations Under SARA," by Ecology and Environment, October 1987. OTA said, "[EPA] could use management consultants or other experts who are not now implementing its programs and who, therefore, may be able to offer more objective ways to improve efficiency."

28 The contractor states its position in one of its advertisements: "By building our engineering work on a solid foundation of regulatory know-how, ICF is qualified like no other firm to provide you with the most comprehensive hazardous and mixed waste management services in the nation. Unlike other firms, we understand not only the technical engineering and remediation aspects of hazardous waste management, but also the framework of regulatory requirements, enforcement, and public involvement in which our clients must operate."

It is not enough that government workers retain final decisionmaking authority unless those government workers have the time, experience, and technical expertise to understand and evaluate what contractors are telling them, as well as create the key basic ideas in the first place. That is, **there is a difference between contractors complementing or supplementing government staff and contractors replacing government staff.** In box B are brief examples, from several contract statements of work, to illustrate current Superfund program support and policy-related work performed by contractors. These seem the kind of activities that people expect government workers to do; some redundancy is also illustrated.

Superfund: Five Years? Twenty Years? Or, More?

Today, few people consider the Superfund program to be one with an early sunset. Simple mathematics confirms that, using the most conservative number of sites to be cleaned up of 2,000 and an optimistic pace of 30 cleanups per year, the Superfund program will be around for the next 60 years (until 2050). Moreover, the cleanup programs outside of Superfund (e.g., EPA's RCRA corrective action program and those in the Department of Defense and Department of Energy) are growing rapidly and they compete for the same workforce.

Given the prospect of a long-term program, the policy question becomes: What kind of infrastructure should EPA be developing to insure institutional movement up a learning curve to bring the program into cost-effective and efficient operation? It is one thing for contractors to gather data on site contamination and implement government cleanup decisions. However, in a number of site case studies, OTA has seen evidence that contractors sometimes explicitly or in a de facto sense decide what sites pose significant enough threats to warrant cleanup, what the cleanup goals should be, what the community should be told, what the most feasible remedies are, whether the field work is of sufficiently high quality, and when the cleanup has met its goals. For these critical activities, a lot of judgment is necessary because technical data cannot simply be plugged into equations to get the right answer.

Over the long term, OTA believes that the Nation would be better served by an experienced, competent *technical* government staff to design, closely supervise, and evaluate the field technical services provided by contractors. This is the critical need, more so than a cadre of government contract managers. But, contract managers is what EPA is focusing attention on.

BOX B.--Examples of Tasks in Current Policy Support Contracts

Booz Allen and Hamilton, "Support for Superfund Implementation and Evaluation" (contract 68-01-7378, $21.7 million):

- perform quarterly monitoring and evaluation of system operations and procedures
- conduct reviews of and develop recommendations on the regional management of the ERCS and TAT contracts
- evaluate environmental results achieved by the removal program
- conduct workforce and training need surveys and assessments
- collect and analyze information, develop reports and briefings on a variety of new emerging waste management technologies and innovations; recommendations shall be required on how to best make such information readily available to program personnel as they plan and implement cleanup objectives
- develop new policies and procedures to provide sound financial management and oversight toward the success of the Superfund program
- define requirements for planning and tracking of program strategic objectives, milestones and accomplishments
- define information needs, identify data sources and develop guidelines for source data collection
- develop issue papers, management briefings, user briefings and Headquarters-regional communications
- determine if [office] technology transfer activities are effective as developed by the program and whether, given the level of resources devoted to this effort, such a program can fulfill the need

CH2M Hill, "Technical Support for Superfund Policy Formulation" (contract 68-W8-0098, $12.7 million):

- provide technical support and recommendations to EPA on management of Superfund construction
- perform investigation of and make recommendations for assisting minority, small business, other contractors, and subcontractors in the Superfund program

ICF, "Policy/Analytic Support for Superfund Implementation" (contract 68-01-7389, $11.3 million):

- analyze statutory provisions to determine the need for new regulations, changes to existing regulations (i.e., NCP), new policy, and new guidance
- [for NCP] prepare regulatory impact analyses and regulatory flexibility analyses
- analyze SITE program issues and results and make policy recommendations
- develop methods for technology transfer

ICF, "Analytical, Technical and Management Services for OSWER" (contract 68-01-7481, $57 million):

- collect and analyze data and information, develop reports and brief the technology transfer committee on a variety of new emerging technologies and innovations; recommendations shall be required on how to best make such information readily available to program personnel, including the Regions and States
- develop improved techniques for measuring performance
- analyze design, develop and implement selected training in critical content areas
- estimate the economic, social, and environmental costs and benefits of actual or proposed environmental regulations or policies on industry and government
- locate qualified experts
- assist in evaluating the economic and technical feasibility of various alternative technologies

Fourth Key Issue:
Does the Extent of Superfund's Dependence On Contracting Reduce Environmental Effectiveness?

Quality in the Superfund program is--or should be--measured by the environmental effectiveness of cleanup decisions and field actions. Reliance on contractors to perform the bulk of Superfund work exerts a number of forces on the program that sometimes jeopardizes the quality of that work. Among those forces are:

- the lack of development of internal EPA expertise, which results in poor contract management and oversight;
- more interest in controlling contractor costs than concern about the environmental performance of contractors;
- a mobile workforce whose perspective on quality, needs, and accountability can shift as it moves from the government--a purchaser of services--to and among contractors--a seller of services; and
- conflicts of interest that arise because working for the government may affect future work in the private sector.

Technical Problems

OTA has illustrated quality problems, such as technical mistakes, use of inaccurate data, and poor quality control in its June 1988 report *Are We Cleaning Up? - 10 Superfund Case Studies*. GAO also noted problems with contractor performance in 51 percent of the cases they examined.[27] The OTA finding that there were substantial problems in the key RODs for sites (which are based in large measure on contractor studies and which are frequently drafted by contractors) was also found in another recent study, which said "... some RODs are simply deficient, lacking clarity, pertinent text, or substantive information."[28] Problems with RODs are also a reflection of high workloads and inexperience of EPA staff, particularly RPMs.

A recent survey of EPA's SITE cleanup technology demonstration program found that:

> Nearly one-third of the interviewed company officials [28 technology developers] claimed that the contractors hired by EPA to sample, test, and analyze data were unsatisfactory. ... Some industry representatives felt the contractors were slow, inexperienced, and generated irrelevant data. ... One official commented that contractors continue to analyze and re-analyze the same data, making more money for themselves and taking away dollars from both industry and EPA.[29]

Of the five technology companies that had completed their demonstrations, four had problems with EPA's contractors that prompted the study to note, "future demonstrations may be hindered unless the contracting system is improved in the future." Out of seven impediments to program performance and progress, contractors were the third most important to industry people in the program. But, "not one EPA official cited problems with the contractors." The

27 U.S. Congress, General Accounting Office, Superfund Contracts - EPA Needs to Control Contractor Costs, RCED-88-182, (Gaithersburg, MD: General Accounting Office, July 1988).

28 C. F. Baies III and G. Marland, "Evaluation of Cleanup Levels for Remedial Action at CERCLA Sites Based on a Review of EPA Records of Decision," Oak Ridge National Lab., January 1989.

29 J. Calarese, et al., "An Evaluation of the EPA Site Demonstration Program," Worcester Polytechnic Institute, Washington, DC Project Center, December 1988.

technology developers also expressed some views on contractors implementing Superfund's remedial program; one said "contractors tend to overcharge the EPA because [in his view] they have the power to do so." Another said that "tax payers are wasting their money in supplying money for consultants who are inept and take too long."

The Hazardous Waste Treatment Council has said of Superfund:

> For the first four or five years, it accomplished absolutely nothing except creating a huge new industry of environmental consultants who put that $1.5 billion into their pockets by studying sites, taking literally years to figure out what the site is like and what kind of remedies might be used. ... It is time to actually put remedies into place--to do the clean-ups.[30]

A member of the Remedial Contractors Council, a trade association formed in 1987, in explaining the group's purpose, said "We wanted to clean up the industry. There are dirt contractors out there who see good money in remedial work but don't perform properly with the proper safety. That gives the whole industry a black eye."[31]

An experienced PRP has written to OTA about a case in which a contractor that had only worked for EPA was hired to perform the RIFS for a groups of PRPs:

> The draft reports we received from the contractor were unacceptable by any engineering standards. [The contractor] assured us that these documents were identical to drafts acceptable to the EPA at other sites.

OTA has examined a number of very lengthy critiques of EPA studies by PRPs or their contractors; these are as critical of the poor technical work being done for the government as was OTA's June 1988 study and a study by several environmental groups and a trade association.[32] For example, work done on the Pristine Superfund site in Ohio for responsible parties independently confirmed problems in the FS study identified by OTA.

Critical studies and protests have not, however, resulted in EPA publicly acknowledging poor contractor work. No information seems to be collected to discover the extent of poor quality work (e.g., studies and cleanups that have to be repeated), and there is no evidence that any Superfund contractor has suffered significantly because of poor quality work. Again, rapidly rising demand by government and private parties relative to supply reduces the likelihood of firms being significantly harmed by poor quality work. This situation undermines the belief of some people that an effective incentive for improving contractor quality is a loss of reputation and business because of poor quality work. Conversely, a cut in Superfund spending on contractors, coupled with improved and expanded EPA staffing, could correct this market.

Examples of Contractor Issues

Following are several examples of contractor issues and problems in Superfund which affect environmental performance of the program.

The Hazard Ranking System

One firm--Mitre--has always held the contract covering the Hazard Ranking System (HRS). Mitre developed the original HRS early in the program, has always run the quality assurance (QA) program for all HRS scores that determines whether sites qualify for remedial cleanups in the Federal Superfund program, and since its reauthorization

30 David Case, cited in Breaking the Environmental Gridlock, Eagleton Institute of Politics, Rutgers, 1988.

31 "Superfund Contractors Unite in RCC," Waste Age, October 1988.

32 Environmental Defense Fund, et al., Right Train, Wrong Track: Failed Leadership in the Superfund Cleanup Program, June 20, 1988.

(1985 through 1989). Yet last March the EPA IG's office commented on this central, nationwide quality assurance program:

> We recommended that the Headquarters HRS scoring quality assurance process needed to be improved, because of the inconsistent application of the HRS process noted in our audits. The Agency's response did not address the concern, but merely reemphasized its existing quality assurance process, which in our opinion, has not adequately ensured the consistency and accuracy of the HRS scoring packages.

OTA received from EPA the database for all HRS scores. OTA has examined the fundamental technical aspects of the HRS approach, and we are also interested in how it is being implemented. When we examined the data for 2,026 sites, we found some surprising and serious errors. For example, we found 12 sites with scores listed as less than 28.50 that our arithmetic check showed to actually be above this cutoff score, which would put them on the National Priorities List (NPL). When we asked EPA about this we were told that many of the data we had been given were for sites that had not completed the QA process and checking for arithmetic errors is done last. This seems a weakness in the QA process because sites with scores less than 25.0 (for whatever reason) do not move to the QA stage, a precursor step to placement on the NPL. Because of our inquiry, a computer search for arithmetic errors was done for all the sites in the database and many errors, including the ones we had found, were discovered by EPA. In fact, the scores of 17 percent of the sites, which had not previously been checked for accuracy, were wrong. To reiterate, the point is that many sites and their scores may never reach this stage because their calculated scores are too low and EPA regional offices drop them from further consideration.

The 17 percent figure for errors shows that the original quality control processes carried out by contractors and regional staff appear ineffective in eliminating simple arithmetic errors. **It is possible that hundreds of sites, which have never entered the HRS database and quality assurance system and which may actually require cleanup, have been dropped from the Superfund system because of undetected mistakes in scoring them.** This is aside from much more complicated technical problems in applying the HRS. At present, there is not much of a safety net in catching such *false negative* sites, because only a few States have enough resources to systematically check out sites dropped from EPA's system.

The Iron Mountain Mines Site

At the Iron Mountain Mines Superfund site in California, the responsible party has written EPA about actions by contractor personnel (under the direction of CH2M Hill, the REM contractor) *during cleanup* which are resulting in extensive migration of hazardous substances offsite. The problems are said to result from the contractors "not understanding the heavy rainfall conditions at this site" and from "EPA's neglect and poor supervision of its contractors at this site." It is also alleged that the contractors "are being allowed to make unjustified profits at taxpayers and [responsible party's] expense."[33]

The Old Springfield Landfill

The June 1988 Feasibility Study (FS) for the Old Springfield Landfill site in Vermont was done by ICF Inc. for Ebasco Services Inc., the prime REM III contractor. The estimated cost for the onsite, mobile incineration option covered several scenarios based on achieving different risk levels by excavating different volumes of hazardous waste. However, the contractor used the same unit

33 Iron Mountain Mines, Inc., letter to U.S. Environmental Protection Agency, Region 9, Nov. 28, 1988.

cost of $600 per cubic yard for mobile incineration over the range of 5,300 to 142,000 cubic yards. First, the FS ignored the fundamental engineering principle of economy of scale, which would have reduced unit cost as the volume increased, something commonly done by Superfund contractors. It is like estimating the cost of aircraft without taking into account how many planes would be manufactured and using the cost of making a few planes when, in fact, hundreds would be made.

Second, *actual* prices now being paid by EPA for mobile incineration are much lower than $600. For example, for the Prentiss Creosote site in Mississippi, EPA contracted for a cleanup of about 8,500 cubic yards at an average cost of about $340 per cubic yard. For 142,000 cubic yards the unit cost might be as low as $150 per cubic yard. If it were, then the cost of the cleanup alternative offering maximum environmental protection would be $78 million instead of the $199 million figure obtained by the contractor.[34]

Moreover, in the same FS costs for the other major treatment alternative, in situ vitrification (ISV), were probably over estimated, although costs for this technology are more uncertain than for incineration. Two recent FSs (Pristine and Goodrich/Airco sites) used unit costs of $290 per cubic yard and $275 per cubic yard; a recent technical paper cited $243 per cubic yard.[35] The Old Springfield FS used values ranging from $447 to $526 per cubic yard but not with a systematic dependence on volume to be treated. If a value of $243 per cubic yard is used, which seems reasonable for the high volume scenario, then the estimated cost of ISV is $72 million instead of the $128 million obtained by the contractor and used by EPA. This situation also illustrates the need for EPA to keep a central data file and to disseminate it to the contractor community. For ISV there is, in fact, only one company and one source of information on the technology and its cost.

In this example, the costs of waste treatment technologies were systematically over estimated relative to the chosen land disposal option which was estimated to cost $13 million.[36] The point here is **not** that a treatment approach in the range of $72 million to $78 million is necessarily the best way to go, but to point out that better site study work **might** have affected the cleanup decisions. Where was the quality control in ICF, in Ebasco, and in EPA? Even a cursory reading of the FS by an engineer could detect the lack of using economy of scale costing for the incineration option. Would the local community have found it useful to have seen more accurate cost estimates of the treatment alternatives during the public comment period?

This site and many others (possibly hundreds) illustrate a larger problem: was such a complex and costly FS really necessary at all? This site appears to fit a category of large, closed, and older landfills containing mostly nonhazardous waste for which the capping cleanup approach is **routinely** selected by EPA. If so, then why spend a lot of money on contractors studying alternatives? In most of these cases hardly anyone would find spending the very large amounts of money for excavation and treatment warranted environmentally or cost effective.

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34 The point here is not the precision of the estimate of $78 million but that there is a very large overestimate given by the $199 million figure and that this latter figure is inconsistent with many data available to contractor and EPA personnel. EPA used $199 million in the analysis that rejected incineration in favor of traditional consolidation, landfilling, and capping of the waste at $13 million.

35 N. J. Sell, Pollution Engineering, August 1988.

36 Hazardous Waste Treatment Council, proceedings of RCRA/SARA 1988 conference, Washington, DC, October 1988. The Hazardous Waste Treatment Council has said, "The cost of technology-based remedies is often cited, but HWTC has found that costs are often wildly over-estimated in RI/FSs ..."

But should capping be considered the permanent solution or an interim control approach? Should there be more explicit commitment to testing for hot spots of contamination and finding lower cost treatment technologies which detoxify the buried hazardous materials?

Supply and Demand

Capping the administrative expenses of the Superfund program has prevented the growth of a huge government bureaucracy. In 1986 EPA had 2,156 technical employees working full or part time on Superfund (in government parlance, 1,116 full time equivalents, or FTEs). The ratio of FTEs to the program's administrative budget has remained fairly constant since 1982, while the ratio of FTEs to the full budget has declined. This has two effects on the program: 1) there are fewer EPA staff to manage more contract work, and 2) the growth of a large internal bureaucracy has been prevented.

The shortage of trained EPA personnel for remedial cleanup has been the subject of many congressional hearings and several GAO studies. GAO reported in 1986, that Superfund staff believed that about 600 new employees were required to meet program needs, estimating the program to be 36 percent understaffed at that time.[37] The high turnover of personnel, one of the causes of understaffing, robs the program of an ability to develop a sufficient, experienced core technical staff. **The lack of a stable core of expertise prevents the program from attaining a high level of efficiency and from routinely making sound, consistent environmental decisions.**

One reason for the staff shortage is simple economics, the laws of supply and demand. There is evidence of a direct relationship between the initiation of Superfund contracts and EPA turnover. EPA Region 2 has told OTA that once new TES and ARCS contracts are signed they expect to lose 20 percent of their Superfund staff. Congress and EPA, by creating an ever growing marketplace for contractors, has also created a demand for personnel outside the government. And, outside demand increases as the Superfund contracting budget increases. Lee Thomas, EPA Administrator, said that the public would see continued growth of the contract industry as a result of the passage of SARA.[38]

The growth of contractor work and the demand it creates drains EPA of its personnel just as they begin to develop some expertise. It turns EPA into a personnel training ground for contractors and forces EPA to compete with contractors in hiring replacement employees. Consequently, EPA has had to hire staff right out of universities for unusually responsible jobs, such as RPMs. Even at that level EPA faces strong competition from the contracting industry. Consulting companies may pay about twice as much as the government in recruiting engineers out of school at the bachelors level. Some RPMs have been hired without technical academic backgrounds.

A study for the Appropriations Committee of the House of Representatives said, "many of EPA's project managers were

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37 U.S. General Accounting Office, Superfund: Improvements Needed in Workforce Management, GAO/RCED-88-1 (Gaithersburg, MD: U.S. General Accounting Office, October 1987).

38 Inside EPA, Jan. 30, 1987.

recent college graduates and were lacking in any real project management experience."[39]

After an extensive U.S. tour, a West German analyst made some insightful remarks about the Superfund program and staffing problems:

> I met the youngest people in the agencies ... some of the technical and procedural problems the agencies had and still have in implementing the cleanup program are due to this staff-situation ... Often it is their first environmental job ... after a couple of years they are well-trained and capable of solving any other problem. You see a lot of them turning over [to] private industry.[40]

As a training ground, EPA not only provides a person with some technical knowledge but, perhaps more importantly for contractors, also internal working knowledge of EPA procedures, the agency's strengths and weaknesses. That knowledge can be invaluable to a contractor already working for EPA or trying to secure work with EPA or PRPs or to a PRP who is negotiating with EPA over site cleanup.

Many senior EPA officials go directly into senior management positions with contractor firms at higher salaries. Even at lower professional levels there is evidence of high rates of turnover of key EPA technical staff to jobs with contractors at higher salaries. GAO estimated that in 1986 Superfund employees leaving the program received an average salary increase of $7,200 annually.

The money gap may be wider now. One EPA region has told OTA that in 1988 they lost 27 percent of their On Scene Coordinators in the removal program; all left for higher salaries, with one receiving a $20,000 pay increase and a company car. One contractor has told OTA that technical people, such as experienced RPMs, could get as much as $70,000 in this firm.

Preliminary analysis of data being collected by OTA (see figure 2) shows that generally the majority of RPM positions--perhaps the most critical technical positions in Superfund with responsibility for multimillion dollar contracts at several sites--pay about $30,000 to $40,000 annually (somewhat more with overtime). And some RPM positions are staffed by relatively junior personnel at the $15,000 to $25,000 level. In some EPA regions, the fraction of these lower paid RPMs is substantial and sometimes results (e.g., Region 9) because of general limits on funds and positions for EPA staff, not a lack of desire to hire more senior people.

Comprehensive data on turnover rates for the whole Superfund program is sketchy. Part of the problem is that EPA does not keep employment statistics by job title but, rather, by professional discipline. And, although some regions may have worse problems in keeping staff than others, no one denies that the Superfund program has a problem in retaining staff. GAO stated that:

> Several critical Superfund occupations had quit rates two to six times higher [in fiscal year 1986] than the average for similar federal jobs ... Most EPA managers GAO interviewed expected the private sector to lure even more employees away from Superfund. GAO's survey showed that over one-third of Superfund employees planned to look for other jobs in 1987.[41]

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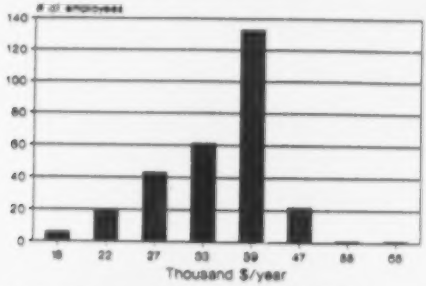
39 Surveys and Investigations Staff, A Report to the Committee on Appropriations, U.S. House of Representatives, on the Status of The Environmental Protection Agency's Superfund Program, March 1988.

40 Gunther Bachmann, "Soil Cleanup Policy in the USA," July 1988, p. 31.

41 U.S. Congress, General Accounting Office Superfund Improvements Needed in Work Force Management, op. cit., p. 4.

Figure 2
RPM Salary Distribution



Source: OTA data from all EPA regions except Region 5.

Note: Salaries estimated at the mid-step of the corresponding federal grade level. Lower level salaries may be over estimated because professional employees at those levels are generally promoted to the next grade prior to reaching mid-step.

One of the first senior managers of Superfund, Ken Biglane, explained the movement of enthusiastic professionals out of the program to contractors: "They're getting paid good salaries for a whole lot less grief." And he described the impact of the loss of people as "sapping the leadership in government in the environmental area."[42]

For the removal program, EPA's IG found in one of its audits that there was "excessive turnover in Technical Assistance Team staff, resulting in high travel costs, and TAT assistance being provided by personnel inexperienced at the site."[43]

The problem is not just lower pay. The GAO report said that better advancement opportunities is the major reason that EPA personnel leave the Superfund program. Other reasons include "dissatisfaction with regional management, salaries, and use of employees' technical skills and disillusionment with clean-up progress."[44] **RPMs also have high workloads, little support, and low morale because their initial high expectations to help solve a serious environmental problem cannot be met.** The large scale dependence on contractors in the Superfund program creates enormous opportunities for government workers to get a lot more money to use their *technical* skills because contractors face a supply problem for experienced technical workers.

When addressing the movement of people from EPA to Superfund contractors it is possible to come to an inaccurate view of the complex national system. Although significant numbers of EPA staff are moving to contractors and EPA does serve as a training ground for contractors, most of the large increases in contractor staff are coming from other sources. These include recent college graduates and people who have worked in other environmental or nonenvironmental

42 Judy Pabst, "Ken Biglane," Hazmat World, August 1988.

43 U.S. Environment Protection Agency, Office of Inspector General, Annual Superfund Report to the Congress for Fiscal 1987, September 1988.

44 Ibid., p. 4.

fields. The large majority of people entering the rapidly growing contractor workforce do not have the kind of cleanup experience that can be obtained by some people at EPA, particularly RPMs. Moreover, growth of the contractor industry has not been stopped by the talent squeeze even though, as one analyst of the contractor industry said, "The greatest constraint to growth in the environmental consulting and engineering business is the very limited availability of experienced professionals."[45]

In assessing the possible impact of SARA at a National Association of Manufacturers meeting in 1986, one speaker claimed that "there just aren't enough experienced people to do what EPA is being told to do" and that with experienced people in short supply industry will be able to pay higher salaries than government, keeping talented people out of government service.[46]

And, prospects for the future are not good. GAO, in discussing EPA management challenges said recently:

> EPA, like other agencies heavily involved in research, can expect *increased* difficulties in competing for top scientific talent against private sector organizations [emphasis added].[47]

This supply-demand problem can be attacked on two fronts: 1) reduce demand by contractors for experienced and inexperienced people, and 2) improve the supply by expanding national education and training and by making working for EPA more attractive, fulfilling, and rewarding.[48]

Infrastructure Development

In the Superfund program solid technical expertise is developed by the people collecting the data for Remedial Investigations and analyzing data for Feasibility Studies and by those actually cleaning up sites. These jobs are done by contracting staff, not EPA personnel. Because of the pull of the contractors, instead of this expertise flowing *into* EPA, what expertise that does exist internally flows out. This leaves EPA personnel evaluating contractors who have at least some people with a better foundation in the basics and more experience.

The dependence on outside contractors also isolates the workforce and makes transfer of knowledge more difficult. This means that detailed understanding of successes and failures are slow to reach the decentralized workforce (see box A). The logistics of transferring knowledge among EPA staff in 10 regional offices is difficult enough but the difficult is compounded by a need to transfer knowledge among a multitude of contractor staff. (Knowledge transfer is also aggravated by EPA's insistence that every site is different; the implication is that knowledge transfer is not critical. As each site starts through the system, the wheel gets reinvented.)[49]

In essence, the Superfund program develops contract managers rather than technical project managers. This is evident in how Superfund employees view training and courses. GAO surveyed EPA Super-

[45] S. Schweich, a financial analyst, quoted in "Searching for the best and brightest," ENR, Oct. 20, 1988.

[46] "Producers wary of new Superfund provisions," Chemical & Engineering News, November 3, 1986, p. 26.

[47] U.S. Congress, General Accounting Office, Environmental Protection Agency: Protecting Human Health and the Environment through Improved Management, GAO/RCED-88-101 (Gaithersburg, MD: General Accounting Office, 1988), p. 234.

[48] A temporary decrease in contractor spending is not, necessarily, seen as unacceptable by Superfund contractors. For example, Gary A. Dunbar of CDM said, "if proper management by government and prudence of program pace mean less money for contractors then that is what should be done." [Letter to OTA, Jan. 18, 1989.]

[49] For example, significant portions of RIFSs are reproductions of data, procedures, statutory and regulatory requirements, and comments on generic cleanup technologies which appear, with minor variations, again and again. Also, see OTA's Are We Cleaning Up?

fund personnel and asked what kind of training they needed. The three areas most often mentioned were cleanup design and action, cost recovery, and legal case development.[50] Only the first has to do with the physical, technical, and environmental needs of the program. Cost recovery and legal case development deal ultimately with keeping the costs to the Fund down. It's a worthy goal but it simply shifts costs elsewhere. **Long-term development of technical expertise in EPA can ultimately drive the overall national costs down.**

One way suggested to overhaul Superfund is:

> The civil service positions would be restructured so they attract--and retain--more career employees. A good first step would be to bring EPA salaries into line with those of the private sector--a move that the General Accounting Office says is permissible when discrepancies are large. Over the long run, this step would cost less than continuing to rely on a large number of high-priced contractors. It would also improve the quality of work.[51]

Conflict of Interest

Contracting by the Superfund program creates several areas of potential conflict of interest that can compromise environmental goals. They arise because there is one national pool of engineering and consulting firms that contracts its services to all branches of the Federal government, to State governments, and PRPs. Sometimes they work as prime contractors, other times as subcontractors who are subject to less scrutiny.

There is now no legal requirement for EPA to tell those using its products and services whether a contractor has been the sole source of the work or a major contributor to it. This means that there is often no sign that a particular contractor--or any contractor at all--has participated in an effort; thus often one cannot tell if there is any potential conflict of interest.[52] Greater public accountability and even motivation for higher quality work might result from more routine acknowledgement of contractor identity and contribution to Superfund activities.

EPA in advising States on Superfund contract requirements recognizes one category of contractor conflict of interest, but not as a given. The agency says:

> *In some instances*, construction contractors, who are PRPs at a site *may have* conflicts of interest which would prevent them from serving the best interest of the State and/or the Federal government as a remedial action contractor [emphasis added].[53]

The ultimate goal of EPA and State government programs, PRPs, and contractors is the same: to clean up sites effectively and at the lowest possible cost. But, they have different perspectives on what that means and how much it should cost. Local communities and PRPs are often at odds with one another over cleaning up sites.

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50 U.S. Congress, U.S. General Accounting Office, Superfund: Improvements Needed in Work Force Management, op. cit.

51 J. L. Edelson, "Superfund - Still in the Dumps," Technology Review, December 1988.

52 For example, EPA's draft "Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites," potentially a very important document, has a contract number but no statement that it was prepared by a contractor. On a long list of people who assisted in preparing the document, all are from EPA except two from CH2M Hill and, in fact, the contractor was CH2M Hill, a long-time Superfund contractor under REM and now a major ARCS contractor. Moreover, this kind of activity would appear to offer a competitive advantage for a remedial contractor active in both the public and private cleanup markets. The document says that it is aimed at assisting, among others, contractors. Also, the important draft "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA," only has a contract number; CH2M Hill was the contractor.

53 U.S. Environmental Protection Agency, "Interim Guidance on State Participation in Pre-Remedial and Remedial Response," memorandum, July 21, 1987, p. 21.

PRPs and their contractors are naturally concerned about costs and profits and are more likely to emphasize reduced cost, tolerate more risk, and view certain cleanup technologies and approaches as more permanent than do the local communities.

A recent analysis of cleanup decisions concluded, "When the PRP is willing to play an active role, the EPA is willing to negotiate and accommodate."[34] Moreover, the study also concluded, "Ultimately cost is the primary factor in setting cleanup standards." How well government officials can sort through the interests of the PRPs and communities depends, in large measure, on whether the government workers can independently assess the technical merits and environmental performance of PRP positions and the contractor studies which support them (see box A). **Under present conditions, the drive for more settlements with PRPs and their control of site studies and cleanups does not assure protection of health and the environment. A much improved and expanded EPA staff is required.**

EPA does forbid a prime contractor to work simultaneously and within three years on the same site for both EPA and the PRPs. This is an admission of conflict between the interests of EPA and PRPs, but this attempt to avoid conflicts has problems. First, enforcement relies on self reporting. While a good many contractors may, not all will necessarily do so. Second, a contractor working for EPA becomes privy to inside information--not generally available--simply in order to complete its assigned tasks for EPA. That kind of information has value not only regarding that particular site but can be of benefit to the PRP, or another PRP, at another site for which the contractor may be concurrently working or subsequently work. The information can also benefit the negotiating position of a PRP v. EPA at any other site in the Superfund program. Because the private cleanup market is also enormous, this factor is important in helping contractors with that side of their business.

Moreover, the three-year limit is low. It is not uncommon for sites to take 10 years to move through the remedial part of the Superfund program. It can take over three years just to complete an RIFS and ROD, the first phase. Thus, three years is not long enough to assure that a contractor responsible for the RIFS for EPA does not end up subsequently handling the design or implementation for the same site for the PRPs. Scrutiny by EPA could solve this potential problem.

Another, and perhaps growing, source of potential conflict is the tendency of vertical integration by contracting firms and PRPs. Conflict of interest may occur when contracting firms and PRPs develop financial interests in cleanup technology that may reduce the scope of remedial technologies examined and impair the ultimate decision. A number of contractors and PRPs own firms that develop or operate cleanup technology. For instance, Roy F. Weston, Inc., a major Superfund contractor owns a mobile incinerator and has also patented technology for low temperature thermal stripping of volatile organic chemicals from soils. Westinghouse plans to use its still unavailable incineration technology to clean up some of its Superfund sites in Indiana.

Will contractors and PRPs be biased toward using technology in which they have financial interest? This bias would not necessarily create a problem except that the contractors and, increasingly, PRPs control the analysis phase (RIFSs) that often results in the selection of a specific technology. In the case of the Indiana sites, this became a highly charged issue and continues to be a

[34] C. F. Baies III and G. Marland, op. cit.

factor in the delayed cleanup implementation. The potential for bias and the control of the technology selection could be mitigated by strong EPA oversight and management of the process, particularly after a cleanup is selected in a ROD and legally embodied in a court's consent decree. But, that does not occur for the most part.[55]

As an example, at the Brown Wood Preserving Superfund site in Florida, the PRPs' contractor for the FS recommended a remedy adopted by EPA in April 1988. Over 95 percent of the site's contaminants were sent to a commercial landfill in Emelle, Alabama, and the remainder kept onsite for biological land treatment, a service provided by the FS contractor. The cost of this remedy ($2.7 million) is one half the estimated cost of using available mobile incineration. The shipment to the landfill was meant to precede EPA's own land disposal bans; incineration was acknowledged to be faster and more effective in satisfying statutory mandates. Thus, EPA accepted a cleanup proposed by a PRP (for a less than optimum remedy) in which both the PRPs and the FS contractor benefit financially. The PRPs saved $2.7 million and the study contractor got a cleanup job worth about $500,000.

55 See OTA's report Are We Cleaning Up? 10 Superfund Case Studies, June 1988.

Fifth Key Issue: Is Superfund's Heavy Dependence On Contracting Cost Effective?

In 1987, EPA Administrator-designate William K. Reilly (then president of the Conservation Foundation) said:

> ... the Superfund program may well result in many billions of dollars being spent with little net reduction in risk to public health and the environment.[56]

Most of the billions are being spent for contractors, and there is growing awareness that the Superfund program's policy of heavy dependence on contractors has negative impact. The conference committee for EPA's fiscal year 1989 appropriations said, "The programs's heavy reliance on contractors creates a substantial risk of resources being wasted."[57] As that statement implies, the real question is not whether money is being saved but whether contracting on such a scale, with the existing degree of EPA management, is a cost-effective way of protecting human health and the environment.

A GAO report on Superfund concluded:

> EPA has not sufficiently monitored, controlled, and challenged contractor expenditures and professional hour usage for remedial studies. By not consistently and fully challenging questionable contractor costs, EPA could be conveying a message to contractors that it is willing to accept all costs regardless of the level of performance provided, thereby lessening the contractors' incentives to control costs. As a result, EPA may be paying more than needed for remedial studies.[58]

EPA's IG, in auditing fiscal 1987 Superfund contract costs, found that about 30 percent of contractor costs were questionable because they might be unallowable under provisions of applicable laws, regulations, or policies or were unacceptable without additional information or evaluations and approvals by responsible EPA officials.[59] The IG also noted, "We have repeatedly found that the Agency's management of Superfund needed improvement." Moreover, the IG has said that it does not have enough resources to carry out the level of auditing and investigation it deems necessary for Superfund.

A recent study on reducing cleanup costs through value engineering cited three examples where original contractor RIFSs performed on Superfund sites did not adequately address certain aspects of the selected remedies. When subsequent reviews and studies were performed at a cost of about $500,000, cleanup cost savings of about $5 million resulted.[60]

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56 William K. Reilly, "State of the Environment: A View Toward the 90s," September 1987.

57 U.S. Congress, Conference Report 100-817, FY89 Appropriations for HUD and Independent Agencies, Aug. 3, 1988, p. 19.

58 U.S. Congress, General Accounting Office, Superfund Contracts - EPA Needs to Control Contractor Costs, RCED-88-182 (Gaithersburg, MD: General Accounting Office, July 1988).

59 U.S. Environmental Protection Agency, Office of Inspector General, Annual Superfund Report to the Congress for Fiscal 1987, September 1988.

60 P. F. O'Hara, et al., "Cost Effective Remediation Through Value Engineering," Superfund '88, conference proceedings (Silver Spring, MD: Hazardous Materials Control Research Institute, November 1988).

A study for the House of Representatives' Appropriations Committee said:

> The Region IX official also stated that EPA gives its contractors pre-negotiated, open-ended contracts with the result that the contractors, with EPA approval, spend too much to study issues ... contractors could cut months off study schedules if they did not spend so much time on 'simple things' and did not study everything 'to death.'[61]

Cost Effectiveness of Contracting

In theory the competition of the marketplace means that the low-cost operator ultimately wins. Whether the same result occurs when the public sector contracts with the private sector instead of doing the work itself is not clear. One reason for the uncertainty is that cost comparability is difficult given the different accounting methods of the two sectors.

However, according to the General Accounting Office:

> ... in those instances where contractor costs are lower, this is generally because the contractor employs fewer persons and pays them less.[62]

But this does not appear to be the case for Superfund contracting.

The OMB rules for contracting out services require that costs of doing so be compared with the costs of providing the service inhouse. Under the Superfund program no comparative studies have been done. The **assumption** has been made that contracting saves money and provides for quality work.

That assumption overlooks a number of factors present within and around the Superfund program. For instance, when the Superfund program began there was a sudden high demand for--and low supply of--technical expertise. Congressional and EPA beliefs that a major contractor workforce was available for the rapidly expanding Superfund program were incorrect. An EPA official, explaining why removal contracts had not proved to be cost effective, stated in 1987:

> The contractors we have used have struggled very hard to do new tasks. They had a lot of unknowns. They took a lot of corporate risks. This was not a well-defined piece of work.[63]

As has been discovered over time, Superfund cleanups often require special expertise that was not and still is not readily available in the private sector. For instance, large numbers of experienced civil engineers, geologists, and hydrogeologists have no expertise or experience with toxic chemicals. EPA has found it necessary to provide training sessions for contractor staff (e.g., on cleanup technologies). To a large extent, the billions of dollars rapidly spent on Superfund have provided an opportunity for many contractors to start new businesses and to learn the new business of toxic waste cleanup. To some extent this was inevitable and has precedents in other fields. But the point here is that the rapid increase in spending on contractors was based on incorrect assumptions and that the efficiency of the program has suffered as a result.

With the reauthorization of the program in 1986 for annual budgets that equal the total authorized for the first five years and a congressional mandate to increase the pace of the program, another surge in demand was created. In fact, the problem is likely to get worse, if spending on cleanups--directly by

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61 Surveys and Investigations Staff, op. cit.

62 U.S. Congress, Congressional Research Service, "Contracting Out", op. cit., p. viii.

63 U.S. Congress, Superfund Implementation, S. Hrg. 100-261, op. cit., p. 156.

government and by private parties--keeps escalating. The lagging supply of expertise means that the program continues to operate with minimal price/cost competition.

During the reauthorization process, the administration claimed that it could not spend as much money as Congress was willing to provide. One experienced lawyer, said at the time, "EPA will have more money than it can spend effectively."[64] Now, several years into the reauthorized program, it is not clear that the money will last five years. Indeed, many contractors spend all of their authorized hours or funds long before anticipated. Either poor estimates were made by EPA and contractors, or more hours are being spent carrying out a task because of problems in program management or contractor performance, or sites are more complex than originally thought. All of these factors seem to be relevant. Eventually, especially given the long-term nature of the program, the market will adjust, supply--particularly of experienced workers--will increase to meet the demand and unit costs may decrease. But, the government might get more control on costs sooner if the government itself does more of the work, if it could practice more stringent supervision of contractors, and if contractor spending is temporarily reduced.

Several other aspects of the Superfund program and contracting mentioned earlier also bear on the question of cost effectiveness. Statutory and public pressures to show high-paced performance, coupled with high EPA staff turnover and inexperienced EPA staff, reduce EPA's ability to exercise effective cost controls. The system of having EPA staff manage prime contractors who manage subcontractors creates several levels of overhead that are all ultimately paid for by the public, either directly through the trust fund or indirectly through PRPs. Whenever lack of proper management results in poor work that has to be repeated, the cost of doing that work doubles or more than doubles. Because of the fragmented nature of the workforce, many contractors doing the same kind of work needlessly develop the same databases and management systems. EPA has not made very wide use of generally useful data and software that the government has paid for in specific contracts.

Government v. Private Sector Costs

OTA has not attempted to examine in detail the commonly held belief that private sector cleanup efforts are less costly than those contracted out by EPA. But this is a common assertion by many PRPs and one PRP has told OTA in writing, "I agree that EPA spends up to five times more than a private party for the same cleanup." It is also widely said that contractors have a higher profit margin when working for the private sector than for the government (although there is no dearth of contractors bidding for government work). In fact, some contractors have told OTA that their desire to do quality work requires higher prices but that the government will not pay the higher prices. Therefore, some firms specialize in private sector work.

Both apparently contradictory beliefs may be correct. While the unit contractor costs are probably higher for private sector [illegible], the job is probably done with less work in the private sector. In other words, lower profit margins in the public sector are probably

64 "Producers wary of new Superfund provisions," Chemical & Engineering News, Nov. 3, 1986, p. 26.

offset by higher volumes of work. Many contractors have experienced very high growth rates and increased profits over the past several years because of government Superfund business.[65] This happened at a time when other engineering and construction markets shrunk. The profit margins of Superfund contractors are comparable to similar kinds of firms; for instance, construction project management firms typically have margins equal to or less than firms holding ARCS contracts.

Redundant contractor work, poorly defined work by the government, greater use of less experienced people, poorly supervised work that leads to late recognition of problems, greater concerns about being criticized which lead to unnecessary, *defensive* work, and changing agency policies and personnel all probably contribute to high government cleanup costs. From looking at actual costs and speaking to contractors and PRPs, **we find it plausible that the government may spend from 100 to 500 percent more than a private client would spend to accomplish essentially the same site study or cleanup.**

Procurement

It is not only the contracting system that generates inefficiencies but how contacts are obtained can increase costs to the government. One problem is that the bid or negotiated cost of a contract may not accurately describe the ultimate cost of providing services. *Buying in* is a contracting phenomenon that Congress has criticized the Pentagon for accepting. In buying in a contractor bids or negotiates low and later rationalizes a need to increase funding in order to complete the tasks required. It takes an internal EPA staff with considerable expertise to know when a contractor has bought in. When this happens in Superfund, EPA has to confront the problem of sunk costs. EPA has to decide whether the tasks can best be completed at the higher cost suggested by a contractor or by terminating the contract and switching to a new contractor, who has to spend time reviewing the accomplishments to date (and possibly redoing some work) before completing the tasks. Or, EPA must decide not to reimburse certain contractor costs, such as for repeating faulty work. It appears that, often, EPA pays more money.

Another practice is to bid without having the people on staff to complete the project. After the contract is signed the contractor spends time and effort to acquire technical staff. Or, the people committed to originally, who are usually outstanding, are switched to another project. Substituting less experienced people can result in lower productivities and higher costs.

Another procurement problem which undermines competitiveness is *wiring* a contract; that is, when a firm is somehow assured of winning a contract. A lack of competitive bids for a contract can indicate widespread awareness by contractor firms that this is happening. The result is an unnecessarily high contract cost.

All these problems seem to have occurred in the Superfund program and all of them are not solely the responsibility of contractors, because the *government* should prevent such problems from occurring. These problems merit IG examination.

From a procurement perspective, the data in table 3 on recently awarded TES contracts

[65] See, for example, the brochure announcing the "Hazardous Waste Business 89" conference in March 1989 which opens with "Win your share of the billion in profits ahead." The brochure goes on to give examples of success stories: companies whose revenues and profits have increased dramatically in recent years. Of the 24 sessions at the conference presented by the industry's leaders, not one deals with managing and assuring environmental performance or quality of company products or services. Three sessions focus on personnel issues, such as recruitment, training, retention, motivation, and preventing employees from becoming arch rivals.

might merit examination. The spread in contract amounts for what is supposed to be the same amount and type of work looks high. The difference between the highest and lowest amounts awarded is $29 million (i.e., $136 million versus $107 million). Although there might be regional differences in cost structures, the differences between the two winning contracts in each EPA region seems unusually high.[66] Five out of the six contracts were less than $131 million, the amount targeted by EPA, and apparently based on the experience with the previous TES contracts.

For three of four policy support Superfund contracts (see box B), hourly costs are in the $40 to $50 range which is consistent with the hourly costs in the six TES contracts. Both activities involve technical analysis to produce reports, rather than operational tasks or field activities as in REM and ARCS contracts. But the fourth policy contract (with CH2M Hill) has an hourly cost of $73, which seems high.

Administrative Complexity

With its bureaucratic procedures, contracting adds inflexibility to the system and inflexibility adds to cost and time. Compare the following with the alternative of assigning a task to internal staff. To initiate a contractor assignment, the EPA RPM Primer advises:

> After completing the Work Assignment Package, you forward it to the RPO [Regional Project Officer] for approval. The RPO transmits the completed package to the Contracting Officer, with a copy for the Project Officer. The Contracting Officer then issues a work assignment to the contractor, who must prepare a Work Plan Memorandum for your approval within 10 days.[67]

And, what happens when a new piece of information on a site causes adjustment to the contractor's scope of work? How is that different from redirecting the work schedule of internal staff? The statement of work has to be amended, officially, in writing. For instance, in a hypothetical case where a site visit has turned up a previously unknown potential threat, the EPA's RPM Primer says:

> In addition to drafting the Work Plan [for the RIFS], the contractor will also be working on the EE/CA [Engineering Evaluation and Cost Assessment] for the ERA [Expedited Response Action] and a CRP update. You amend the interim scope of work activities to include preparation of the EE/CA. This is done via approval of an interim amendment on the Work Assignment Form.[68]

Dependent Bureaucracies

Instead of an *internal* bureaucracy, an encircling one with close ties to EPA's Superfund program has grown up within the private sector. This constituency exerts the same kinds of pressures that an internal bureaucracy would (such as desire for permanence and expansion) while being less subject to government control and public scrutiny.

Superfund conventions, conferences, and trade shows represent an expanding business too. Annually, the largest occurs in Washington, DC. EPA is the chief affiliate sponsor; EPA's contractors and staff dominate the technical meetings. Contractors receive funds to attend such meetings. There is virtually no representation or attendance by people from environmental, public

[66] For example, compare with the five largest ARCS contracts in Region 5, as shown in Table 4. The ARCS are much more complicated contracts than TES. But the spread for the ARCS is $15 million on a base about twice as large as TES, while the spread in Region 1 for TES is $12 million.

[67] U.S. Environmental Protection Agency, "The RPM Primer," OSWER Directive 355.1-02, September 1987, p. 10.

[68] Ibid, p. 20.

interest, or community organizations, and attendance by technical people from PRPs is minimal. The atmosphere and program content is self-congratulatory rather than critical self-appraisal and effective information transfer. Interfering with information transfer is the fact that the conference also serves as a job clearinghouse that exacerbates the government brain drain and the mobility of people among contractors.

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